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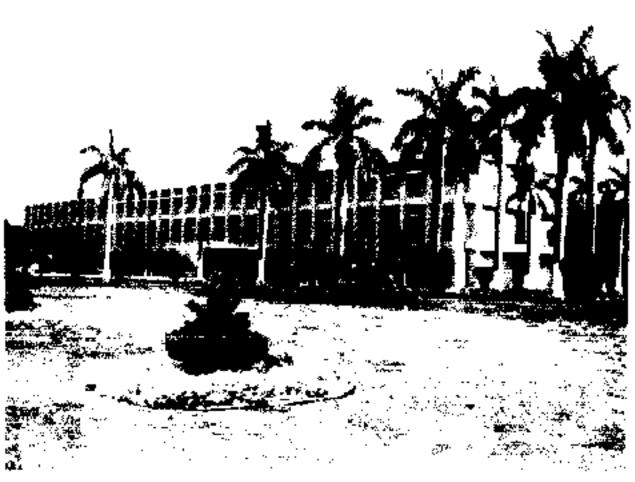
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AGENDA FOR 16TH MEETING OF BUILDING & WORKS COMMITTEE NOVEMBER 19, 2012



AGENDA FOR 16TH MEETING OF BUILDING & WORKS COMMITTEE

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BOARD ROOM

GOLDEN JUBLIEE ADMINSTRATIVE BUILDING

NATIONAL INSTITUTE OF TECHNOLOGY

KURUKSHETRA

DAY

MONDAY

DATE

19.11.2012

TIME

:

11:30 AM

NATIONAL INSTITUTE OF TECHNOLOGY KURUKSHETRA

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\odot			Director, National Institute of Technology,	
()			Kurukshetra	
_		2	Nominee of the Central Government	Member
()	•		On the B & WC of the Institute, (to be nominated by the MHRD)	
0			Through	
			Sh. Rajesh Singh	
			Director (NITs),	
\odot			Deptt. of Higher Education,	•
			M.H.R.D., Shastri Bhawan, New Delhi-110001	
(3)	•	3	Vacant (to be nominated by the board) Member
\odot				,
(3)		4	Prof. V.K. Arora	Member
0			Dean (Planning & Development)	
0			National Institute of Technology, Kurukshetra	
\bigcirc		5.	Er. Iqbal Singh,	Member
0			Executive Engineer (Civil),	
\odot			Karnal Central Division, CPWD,	
Ó		_	Karnal.	
U		6.	Er. Surender Singh,	Member
\odot			Superintending Engineer (Electrical), Chandigarh Electrical Central Circle, CI	PWD .
Θ			Chandigarh	, , , , , , , , , , , , , , , , , , ,
		7.	Prof. K.K. Singh	Special Invitee
0			Dean (Estate)	•
0			National Institute of Technology,	•
		8.	Kurukshetra Prof. Ashwani Jain	Special Invitee
\bigcirc		· ·	Prof. in-charge (Estate & Construction),	_
\bigcirc			National Institute of Technology,	
		•	Kurukshetra	
0		9.	Dr. Ashwani Kumar Prof- in- Charge (Elect. Mtc)	Special Invitee
\bigcirc			National Institute of Technology,	
\odot			Kurukshetra	
\odot		10.	Er. A.L. Kamboj,	Special Invitee
(\cdot)			Executive Engineer (Construction cell)	
$\dot{\bigcirc}$			National Institute of Technology, Kurukshetra	•
		11.	Sh. S.N. Kaushik,	Special Invitee
\odot		,	Assistant Engineer (Civil)	4
()			National Institute of Technology,	
		10	Kurukshetra	Wambar Caret
()		12.	Sh. G. R. Samanthray Registrar-in-Charge	Member-Secretary
(E			National Institute of Technology,	
,r ·			Kurukshetra	

Item No.16.1 To confirm the minutes of 15th meeting of the Building & Works Committee held on 19.12.2011

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The minutes of 15% meeting of Building & Works Committee held on 19.12.2011 were circulated amongst the members vide letter No.NIT/15% BWC/324 dated 16.01.2012. No comments were received from any member. The minutes are enclosed as Annexure-1 from page 3, to 3.

The minutes may be confirmed.

NATIONAL INSTITUTE OF TECHNOLOGY KURUKSHETRA-136119

Minutes of the 15th meeting of the Building & Works Committee, National Institute of Technology, Kurukshetra held on 19th December, 2011 at 11.30 AM in the Board Room of the Institute.

The following were present:

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- Prof. Anand Mohan Charrman
 Director,
 National Institute of Technology
 Kurukshetra
- 2 Sh. Vijay Prakash Saha Member Mamta Bagicha, Morahabis, Ranchi-834008
- 3. Prof. V.K. Arora Member Dean (Planning & Development)
 National Institute of Technology,
 Kurukshetra
- 4. Er Niranjan Singh Member Superintending Engineer (Civil), Chandigarh Central Circle, CPWD, Chandigarh.

 Chandigarh.
- Er. Vimal Kumar Member SuperIntending Engineering (Electrical), Chandigarh Electrical Central Circle, CPVVD, Chandigarh.
- 6 Prof. K.K. Singh Special Invitee Chairman (Estate, Const. & Elect. Mtc.), National Institute of Technology, Kurukshetra
- 7 Dr. Ashwani Jain Special Invited Prof. In-charge (Estate & Construction), National Institute of Technology, Kurukshetra
- Or, Ashwani Kumar Special Invited
 Prof. In-charge (Elect. Mtc.),
 National Testitute of Technology
 Kurukshetra

•		
9.	Er. B.B. Mittal Executive Engineer (Construction Cell) National Institute of Technology, Kurukshetra.	Special Invited
10	Sh. S.N. Kaushik Junior Engineer (Civit) & EO In-charge National Institute of Technology, Kurukshetra.	Special Invitee
11.	Sh. G. R. Samantaray Registrar In-charge National Institute of Technology, Kurukshetra	Member-Secretary
	The nominee of the MHRD could not attend the med	eting.

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The Hon'ble Director and Chairperson, Building & Works Committee. extended hearty weicome to all the members and special invitees present in the meeting.

The Building & Works Committee took the following decisions:

To confirm the minutes of 14th (Special) meeting of the Building & Works Committee held on 17.06.2010.

The Building & Works Committee confirmed the minutes of 14th (Special). meeting of the Building & Works Committee held on 17.06.2010.

15.2 To report the action taken on the minutes of the 13th meeting of the Building & Works Committee held on 25.02.2010.

The Building & Works Committee noted and approved the action taken on the minutes of the 13th meeting of the Building & Works Committee held. on 25,2,2010. The RWC also noted that 'No further action is required to be taken' under agenda item 13 2(1).

Further, under 13.2 (2) for the construction of Swimming Pool, Building & Works Committee acceded to the request of the CEWD for extending the time limit from 31.01.2012 to 28.02.2012.

Under item 13.2 (5) the committee advised that the agenda items of this 15th meeting be also revised on DSR basis instead of HSR.

B & WC was also informed under item 13.4 that Mega Boys Hoste' (1000). capacity) is likely to be completed by May (2012)

15.3 To report the action taken on the minutes of the 14th (Special) meeting of the Building & Works Committee held on 17.06.2010.

The Building & Works Committee approved the actions taken on the minutes of the 14th (Special) meeting of the Building & Works Committee held on 17.6.2010.

15.4 To consider & approve the Revised Cost Estimate for Boundary Wall of Hostel No. 1 & 2 at NIT, Kurukshetra.

The Building & Works Committee noted the cost estimate presented in the agenda on HSR basis and advised to adopt DSR for revised cost estimate.

The BWC approved the Revised Estimated Cost of Rs. 45.00 lacs for Boundary Wall of Hostel No. 1 and 2 as calculated on the basis of DSR (Annexure -1)

15.5 To consider and approve the Revised Cost Estimate for providing 20mm thick premix carpeting "B" type seal coat on various existing roads at NIT, Kurukshetra.

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The Building & Works Committee approved the revised estimated cost of Rs. 48.51 Lacs for providing 20 mm thick premix carpeting "B" type seal coat on various existing roads of NIT, Kurukshetra.

It was also decided that as per General Financial Rules (GFR) if the revised cost estimate falls within 10% of the original estimate then the matter may not be brought before B & WC.

Further, it was desired that in future escalation in cost for previously approved works should be presented before the BWC on the Form-IV (Annexure- 2).

15.6 To consider & approve the Revised Cost Estimate for Construction of 20 Nos. Professor & 20 Nos. Asstt. Professor Multi storeyed Staff Housing at NIT, Kurukshetra.

The Building & Works Committee approved the Revised Estimated Cost of Rs. 1633 lacs + Rs 57 lacs (cost of 2 Nos. lifts) = Rs 1690 lacs for construction of 20 Nos. Professor & 20 Nos. Asstt. Professor Multi storied Staff Housing at NIT, Kurukshetra. Escalation in cost as per Form-IV enclosed – (Annexure-3).

Further, the Building & Works Committee was of the view that although the DG set is required for the smooth running of lifts during power failure, but it is not desirable to have separate DG sets for various buildings. Therefore, it was decided that the existing DG set of the Guest House be utilized for the purpose of back-up supply of lifts and if need be the capacity of DG set of Guest House be increased to cater to the needs of Health Centre also.

15.7 To consider & approve the Rough Cost Estimate for construction of 2 No. Institute Main Gates at NIT, Kurukshetra.

The Building & Works Committee approved the Rough Cost Estimate for construction of 2 No. Institute Main Gates at a total cost of Rs. 82.99 lacs.

15.8 To consider & approve the Rough Cost Estimate for construction of 2 Nos. Parking at NIT, Kurukshetra.

The Building & Works Committee approved the Rough Cost Estimate for construction of 2 Nos. Parking at NIT, Kurukshetra at a cost of Rs. 94.21 lacs including works for electrical installations @ 12.5% of cost of civil works.

15.9 To consider & approve the Rough Cost Estimate for Sewage Treatment Plant (STP) at NIT, Kurukshetra.

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The Building & Works Committee approved the Rough Cost Estimate for Sewage Treatment Plant (STP) of 1 MLD capacity at the cost of Rs. 318.08 lacs.

It was also desired that the coordinator of the newly proposed School of Renewable Energy of the Institute should approach Ministry of Renewable Energy, Govt. of India to explore the possibilities of utilization of biogas for generation of cooking gas.

15.10 To consider & approve the Rough Cost Estimate for Cold Water Tanks & Supply Pipe line to the Solar Water Heating System Installed in the Hostel No. 1 to 9 Boys Hostel, Girls Hostel No. 1 & 2 at NIT, Kurukshetra.

The Building & Works Committee approved the Rough Cost Estimate for Cold Water Tanks & Supply Pipe line to the Solar Water Heating System Installed in the Boys Hostels No. 1 to 9 and Girls Hostel No. 1 & 2 of the Institute at the cost of Rs. 60.64 lacs.

15.11 To consider and approve the Rough Cost Estimate for Construction of 600 seater Girls Hostel (Multi-Storeyed framed structure, Ground Floor + 5) at NIT, Kurukshetra.

The Building & Works Committee approved the Rough Cost Estimate for construction of 600 seater Girls Hostel (Multi-Storeyed framed structure, Ground Floor + 5) at a cost of Rs. 48.99 crores including additional 5% for the provisions of green building i.e. provision of solar water heating system, solar lighting system etc.

15.12 To consider and approve the Rough Cost Estimate for Construction of 300 seater Multi-Purpose Boys Hostel including 100 suites for foreign students, research scholars and married PG students. (Multi-Storeyed framed structure Ground Floor + 5) at NIT, Kurukshetra.

The Building & Works Committee approved the Rough Cost Estimate for construction of 300 seater Multi-Purpose Boys Hostel including 100 suites for foreign students, research scholars and married PG students. (Multi-storied framed structure Ground Floor + 5) at a cost of Rs. 35.96 crores including additional 5% for the provisions of green building i.e. provision of solar water heating system, solar lighting system etc.

15.13 To consider and approve the Rough Cost Estimate for Construction of 3 Storey bearer barrack comprising of 2 blocks to accommodate 96 bearers at NIT, Kurukshetra.

The Building & Works Committee approved the Rough Cost Estimate for Construction of 3 Storey bearer barrack comprising of 2 blocks to accommodate 96 bearers at a cost of Rs. 2.45 crores.

15.14 To consider & approve the Rough Cost Estimate for construction of Boundary Wall (left out stretches) for a length of about 800 mtr. and Gate (near UHBVN office) at NIT, Kurukshetra.

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The Building & Works Committee advised to adopt DSR for revised cost estimate instead of HSR.

The Building & Works Committee approved the Rough Cost Estimate for construction of Boundary Wall (left out stretches) for a length of about 800 mtr. and Gate (near UHBVN office) at the cost of Rs. 48.25 lacs on DSR basis (Annexure -4).

15.15 To consider and approve the Rough cost estimate providing permanent fencing along the lawns & gardens of the Institute with revolving entry gates including CC pathways at NIT, Kurukshetra.

The Building & Works Committee advised to adopt DSR for revised cost estimate instead of HSR.

The Building & Works Committee approved the Rough cost estimate providing permanent fencing along the lawns & gardens in the academic blocks of the Institute with revolving entry gates including CC pathways at the cost of Rs. 66,00 lacs on DSR basis (Annexure -5)

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15.16 To consider & approve the Rough Cost Estimate for widening of Institute Road from Kirmich Road Gate to Hostel No. 4 (approx. length of 400 mtr.) at NiT, Kurukshetra.

The Building & Works Committee advised to adopt DSR for revised cost estimate instead of HSR.

The Building & Works Committee approved the Rough Cost Estimate for widening of Institute Road from Kirmich Road Gate to Hostel No. 4 (approx. length of 400 mtr.) at the cost of Rs. 39.00 lacs on DSR basis (Annexure -6).

15.17 To consider & approve the Rough Cost Estimate for Providing & Installation of 16/20 meter High Mast lights at Sports Ground and various other location at NIT, Kurukshetra.

The Building & Works Committee approved the Rough Cost Estimate for Providing & Installation of 16/20 meter High Mest lights at Sports Ground and various other location at NIT, Kurukshetra at the cost of Rs. 40.95 lacs.

15.18 To consider & approve the Rough Cost Estimate for Ronovation of Labs in Electrical, Mechanical and Civil Engineering Departments (Under TEQIP-II) of NIT, Kurukshetra.

The Building & Works Committee advised to adopt DSR for revised cost estimate instead of HSR.

The Building & Works Committee approved the Rough Cost Estimate of Rs. 37.50 lacs on DSR basis for Renovation of Labs in Electrical Mechanical and Civil Engineering Departments (Under TEOIP-II) (Annexure -7)

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15.19 To consider & approve the Rough Cost Estimate for preparation of Institute Moster Plan, NIT, Korukshotta.

The Borlding & Works Committee approved the Rough Cost Listenate for preparation of Institute Master Plan of NPL Kurukshelra at the cost of Rs. 31.00 lacs.

The mooting ended wills a vote of thanks to the Chair.

இத்திற்கள் Registrar(Incharge) & Member Secretary Building & Works Committee, NIT, Kurukshefra

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Director, NITK & Chairman, Building & Works Committee, NIT, Kurukshetra

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Item No. 16.2

To report the action taken on the minutes of the 15th meeting of the Building & Works Committee held on 19.12.2011.

The action taken on the minutes of the 15th meeting of the Building & Works Committee held on 19.12.2011 is enclosed.

To report the action taken on the minutes of the 15-meeting of the Building & Works Committee held on 19.12.2011.

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Item No.	Subject	Decision taken	Action taken
16.1	1	The Building & Works Committee confirmed the minutes of 15th meeting of the Building & Works Committee held on 19.12.2011.	required.
16.2	To report the action taken on the minutes of the 15th meeting of the Building & Works Committee held on 19.12.2011.	The Building & Works Committee noted the action taken on the minutes of the 15 th meeting of the Building & Works Committee held on 19.12.2011.	
15.4	To consider & approve the Revised Cost Estimate for Boundary Wall of Hostel No. 1 & 2 at NIsT, Kurukshetra.	The Building & Works Committee noted the cost estimate presented in the agenda on HSR basis and advised to adopt DSR for revised cost estimate. The BWC approved the Revised Estimated Cost of Rs. 45.00 lacs for Boundary Wall of Hostel No. 1 and 2 as calculated on the basis of DSR	Work likely to be allotted to CPWD
15.5	To consider and approve the Revised Cost Estimate for Providing 20mm thick premix carpeting "B" type seal coat on various existing roads at NIT, Kurukshetra.	The Building & Works Committee approved the revised estimated cost of Rs. 48.51 Lacs for providing 20 mm thick premix carpeting "B" type seal coat on various existing roads of NIT, Kurukshetra. It was also decided that as per General Financial Rules (GFR) if the revised cost estimate falls within 10% of the original estimate then the matter may not be brought before	Work completed

Further, it was desired that in future escalation in cost for previously approved works should be presented before the BWC on the Form-IV. To consider & approve the Revised Cost Estimate for Construction of 20 Nos. Professor & 20 Nos. Asstt. Professor Multi storeyed Staff Housing at NIT, Kurukshetra. 1500 lacs for construction of 20 Nos. Professor & 20 Nos. Asstt. Professor Multi storied Staff Housing at NIT, Kurukshetra. 1510 lacs for construction of 20 Nos. Asstt. Professor Multi storied Staff Housing at NIT, Kurukshetra. Escalation in cost as per Form-IV. Further, the Building & Works Committee was of the view that although the DG set is required for the smooth running of lifts during power failure, but it is not desirable to have separate DG sets for various buildings. Therefore, it was decided that the existing DG set of the Guest House be utilized for the purpose of back-up supply of lifts and if need be the capacity of DG set of Guest House be increased to cater to the needs of Health Centre also. To consider & approve To consider & approve The Building & Works Work likely to be allotted to the suppose of the consider to the needs of Health Centre also.		,		B & WC.	
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To consider & approve The Building & Works Work likely to be allotted					
- A					
the Pough Cost Committee and the to CDMD					Work likely to be allotted to CPWD
committee approved the				Committee upproved	to CI WD
Estimate for Rough Cost Estimate for construction of 2 No. construction of 2 No.		157			
Institute Main Gates at Institute Main Gates at a		13.7			·
NIT, Kurukshetra. total cost of Rs. 82.99			NIT, Kurukshetra.	1	
lacs.					
To consider & approve The Building & Works Compliance made and		15.0	To consider & approve	The Building & Works	-
the Cost Estimate for Committee approved the work likely to be allotted		15.8	the Cost Estimate for	Committee approved the	work likely to be allotted

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0				Rough Cost Estimate ioi	WVIIID
0			2 Nos. Parking at NIT, Kurukshetra.	construction of 2 Nos. Parking at NIT,	
0				Parking at NIT, Kurukshetra at a cost of	
				Rs. 94.21 lacs including	
0				works for electrical	
(3)				installations @ 12.5% of cost of civil works.	
0					
0			To consider & approve	The Building & Works	
			the Rough Cost Estimate for Sewage	Committee approved the Rough Cost Estimate for	to CPWD
0	.		Treatment Plant (STP) at	Sewage Treatment Plant	
			NIT, Kurukshetra.	(STP) of 1 MLD capacity at	·
0				the cost of Rs. 318.08 lacs.	
Ó				It was also desired that the	
		15.9		coordinator of the newly	
(O) (O)				proposed School of	
0				Renewable Energy of the Institute should approach	
\odot				Ministry of Renewable	
0				Energy, Govt. of India to	
				explore the possibilities of	
()		į		utilization of biogas for generation of cooking gas	
Θ			To consider & approve		Work likely to be allotted
0			the Rough Cost	dominion approva	to CPWD
\bigcirc		!	Estimate for Cold Water Tanks & Supply Pipe	Rough Cost Estimate for Cold Water Tanks &	
			line to the Solar Water	Supply Pipe line to the	
\odot		15.10	Heating System Installed in the Hostel	Solar Water Heating	
()			No. 1 to 9 (Boys Hostel,	System Installed in the	
			Girls Hostel No. 1 & 2 at	Boys Hostels No. 1 to 9 and Girls Hostel No. 1 & 2	
			NIT, Kurukshetra.	of the Institute at the cost	
				of Rs. 60.64 lacs.	
\bigcirc			To consider and approve the Rough Cost	The Building & Works Committee approved the	Work likely to be allotted to CPWD
0			Estimate for	Rough Cost Estimate for	
()			Construction of 600 seater Girls Hostel	construction of 600 seater	
0			seater Girls Hostel (Multi-Storeyed framed	Girls Hostel (Multi-	
		15.11	structure, Ground Floor	Storeyed framed structure, Ground Floor + 5) at a cost	
()		10.11	+ 5) at NIT, Kurukshetra.	of Rs. 48.99 crores	
0				including additional 5% for	
(, -				the provisions of green building i.e. provision of	
				solar water heating	
				system, solar lighting	

			system etc.	
Ī		To consider and approve	The Building & Works	Work likely to be allotted
-		the Rough Cost	Committee approved the	to CPWD
į		Estimate for	Rough Cost Estimate for	
		Construction of 300	construction of 300 seater	
		seater Multi-Purpose	Multi-Purpose Boys Hostel	
ĺ	•	Boys Hostel including	including 100 suites for	
		100 suites for foreign	foreign students, research	
		students, research	scholars and married PG	·
[scholars and married PG students. (Multi-	students. (Multi-storied	
	15.12	Storeyed framed	framed structure Ground	
		structure Ground Floor +	Floor + 5) at a cost of Rs.	
		5) at NIT, Kurukshetra.	35.96 crores including	
	•	0, 40 1121, 1201-0122-0	additional 5% for the	
			provisions of green	
		7	building i.e. provision of	
			solar water heating	
			system, solar lighting	·
			system etc.	
		To consider and approve	The Building & Works	Work likely to be allotted
		the Rough Cost	Committee approved the	to CPWD
		Estimate for	Rough Cost Estimate for	
		Construction of 3 Storey	Construction of 3 Storey	
	15.13	bearer barrack	bearer barrack comprising	
	10.10	comprising of 2 blocks	of 2 blocks to	
		to accommodate 96	accommodate 96 bearers	
		bearers at NIT, Kurukshetra.	at a cost of Rs. 2.45 crores.	•
		Kuruksiicu a.		
		To consider & approve	The Building & Works	Compliance made and
		the Rough Cost	Committee adviscd to	work likely to be allotted
		Estimate for	adopt DSR for revised cost	to CPWD
		construction of	estimate instead of HSR.	
		Boundary Wall (left out		
		stretches) for a length of about 800 mtr. and	The Building & Works	
	15.14	Gate (near UHBVN	Committee approved the	
	15.14	office) at NIT,	Rough Cost Estimate for	· •
		Kurukshetra.	construction of Boundary	
			Wall (left out stretches) for	
			a length of about 800 mtr.	
			and Gate (near UHBVN	
			office) at the cost of Rs.	
			48.25 lacs on DSR basis .	
	15.15	To consider and approve	The Building & Works	Compliance made and
		the Rough cost estimate	Committee advised to	work likely to be allotted to CPWD
		providing permanent fencing along the lawns	adopt DSR for revised cost	to CFWD
		& gardens of the	estimate instead of HSR.	
		Institute with revolving	mi D. 1111 0 277 1	
		entry gates including CC	The Building & Works	
		pathways at NIT,	Committee approved the	
			Rough cost estimate	

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ŀ		Kui uksiicu a.	providing permanent	
1			fencing along the lawns &	
	ļ		gardens in the academic	
			blocks of the Institute with	
			revolving entry gates	
			including CC pathways at	
- 1			the cost of Rs. 66.00 lacs	
			on DSR basis	
	15.16	To consider & approve	The Building & Works	
1		the Rough Cost	Committee advised to	work likely to be allotted
		Estimate for widening of	adopt DSR for revised cost	to CPWD
		Institute Road from	estimate instead of HSR.	
ļ		Kirmich Road Gate to	The Desilding O Wester	
ļ		Hostel No. 4 (approx. length of 400 mtr.) at	The Building & Works	
		NIT, Kurukshetra.	Committee approved the	
		MII, Kurukshena.	Rough Cost Estimate for	
			widening of Institute Road	
			from Kirmich Road Gate to	
			Hostel No. 4 (approx.	
		·	length of 400 mtr.) at the	
			cost of Rs. 39.00 lacs on	
		·	DSR basis.	
	15.17	To consider & approve	The Building & Works	
,		the Rough Cost	Committee approved the	to CPWD
		Estimate for Providing &	Rough Cost Estimate for	
		Installation of 16/20	Providing & Installation of	
		meter High Mast lights	16/20 meter High Mast	
		at Sports Ground and various other location at	lights at Sports Ground	
		NIT, Kurukshetra.	and various other location	
		Wii, Kui uksiicu a.	at NIT, Kurukshetra at the	
			cost of Rs. 40.95 lacs.	
	15.18	To consider & approve	The Building & Works	Work is in process by the
		the Cost Estimate for	Committee advised to	Institute
		Renovation of Labs in	adopt DSR for revised cost	
		Electrical, Mechanical	estimate instead of HSR.	
		and Civil Engineering		
	1	Departments (Under	The Building & Works	
		TEQIP-II) at NIT, Kurukshetra.	Committee approved the	
		Kurukshetta.	Rough Cost Estimate of	
			Rs. 37.50 lacs on DSR	
			basis for Renovation of	
			Labs in Electrical,	
	2		Mechanical and Civil	
			Engineering Departments	
			(Under TEQIP-II)	
				,
	15.19	To consider & approve	The Building & Works	Work likely to be
		the Rough Cost Estimate	Committee approved the	allotted to CPWD
		for preparation of	Rough Cost Estimate for	
		Institute Master Plan,	preparation of Institute	
		NIT, Kurukshetra.	•	

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0			Master Plan of NII,	
			Kurukshetra at the cost of	
0			Rs. 31.00 lacs.	
0				
0			The building and Works	
4		·	Committee approved cost estimate for the	
0			construction of additional	
0			block of Health Centre at	
			National Institute of	
0			Technology, Kurukshetra	
0			at the cost of Rs. 68.8 lacs	
0			in its 8 th meeting held on 28.05.2007 vide Item No.	
1	}		8.11.	
0				Work is in progress and
0			Committee approved in its	
				No. 16.4 is being placed
0	}		28.07.2009 vide Item No. 11.3 the revised cost	1.
0			estimate for amounting to Rs.	estimate.
			801.40 lacs for (i) & ii). (i)	
0			providing & installation of	
0			Electrical Sub-station HT/LT	
0			Distribution i/c street lighting & feeder pillars etc.	
			non residential area at NIT,	·
0			Kurukshetra. (ii) Providing &	
			Installation of Electrical sub-	
			station HT/LT Distribution and feeder pillars in	
0			residential area at NIT,	·
()			Kurukshetra	
\odot			The Building & Works	
			Committee approved the cost estimate for construction of	
\bigcirc			Administrative Block in	for revision of cost
()			National Institute of	estimate.
<u> </u>			Technology, Kurukshetra for	
\odot		·	amounting to Rs. 659.00 lacs in its 9 th meeting held on	·
\bigcirc			17.03.2008 vide Item No.	
0		·	9.12.	
			The Building & Works	Work is in progress
			Committee approved the revised cost estimate for the	·
0			construction of Swimming	,
N2/ 25			Pool at NIT, Kurukshetra for	
(\cdot,\cdot)			amounting to Rs. 396.76 lacs	
(in its 10th meeting of the B & WC held on 19.02.2009 vide	
			Item No. 10.4.	

Item No.16.3 To consider & approve the Revised Cost Estimate for Construction of Administrative Block at NIT, Kurukshetra.

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The above mentioned work was approved in the 9th meeting of B & WC vide Agenda Item No.9.12 held on dated 17.03.2008 for an amount of Rs.659.06 lacs with plinth area of building 3925 sqm. Revision of the cost estimate is essential due to increase in plinth area of the Administrative Building from 3925 sqm. to 4552 sqm., weight of the trusses due to revision of structural drawings of trusses, providing of arm strong & aluminum sheet false ceiling and earthen pivot tiles on floor, additional provision of S.I.T.C. of 500 KVA out door type Sub-Station equipment, hot & cold cassette type Air Conditioners, S.I.T.C. of 320 KVA D.G. Power Set etc. during construction. Now, the Chief Engineer, CPWD has submitted the revised cost estimate amounting to Rs. 855.34 lacs for revised A/A & E/S.

The B & WC may consider and approve the revised cost estimate for the above cited work for an amount of Rs. 855.34 lacs.

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S	भारत रारयगर हिल्ला है। एक प्राप्त प्राप्त रारयगर हिल्ला है। एक प्राप्त प्राप्त रारयगर हिल्ला है। एक प्राप्त प्राप्त रार्यगर । उठ्यां प्राप्त है। एक प्राप्त है। एक प्राप्त रार्यगर है। एक प्राप्त है। एक प्राप्त रार्यगर है। एक प्राप्त राया राया राया राया राया राया राया राय
Ò	केंग्रहोविका केंग्रीय शहर स्वर्ष केंग्रिका है । जिल्ला केंग्रिका केंग्रिका केंग्रिका स्वर्ण स्वर्ण केंग्रिका केंग्रिका स्वर्ण स्वर्ण केंग्रिका केंग्रिका केंग्रिका स्वर्ण केंग्रिका केंग्
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Э	संख्या : 23(390)/SE(P)/EE(P)-TL / 3 Y #3
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Ç	Mational Institute of Technology (212)"
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Э	May 410 Administrative Block at N.T.T., Kulmikshotka
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D	्मुझे सूचका अधिकारी के प्रशासनिक अनुगोदन पूर्व न्यूयू स्वीकृत के शिक्षाल ^{8,5} 5,34,300/ (अपसे अग्रिक अन्तरेड लोक्स प्रचारनकारम् चीर्तीस हतार्ड होती सेरे) वर्ष प्रतिमिक अनुपक्ति प्रतियों में भेषाने वर्ग
Θ	ित्य हुआ है । अवर्ष की आदश्यकता और अनुमान के प्रावधानों को रिपोर्ट में वर्शाया गया है । अनुसंध है कि कर्य की
.)	पञ्ची भेजते समय "लेख शीर्ग" शिसके जन्मगीत व्यय किया जाना है सूचित किया जाए ।
9	· · · · · · · · · · · · · · · · · · ·
., .,	रतसंभाः प्रारम्भितः अनुभाव ं । दो प्रतियां ।
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.'	प्रतिकिषः-
:) अधीवाण आभियंतर, च <u>रण्डितिर्वेद,</u> केन्द्रीय परिभण्डल, केन्स्रोन्गिनिन्न, <u>गर्डिडिकि</u> न्
	∖ा2. अशीक्षाण अभियता, थण्डीवद केन्द्रीय वैद्युत परिमण्डल∓केल्लांजीन्निन, चण्डीवद ।
)	्रंडी वृश्चित्र व्यक्तुक ।चन्डांन्-एक।, केन्स्तोन्निन्न, चण्डीयद । ् ४. कार्यपृक्तक अभियंता, किस् र्केट्य केन्द्रीय गण्डल, केन्स्तोनिनिनिन, <mark>मेन्स्रिक्स</mark>)
	् ५. व्यार्थपालक जामवता, नुरुद्धकारका क्रिक्स
	ຍະປຸດຂາຍ alໃນລ້າງ (ນ)o 1

Central Public Works Department

State: J&K. Division: KCD Branch: B& H

Name of Work: C/o Administrative Block at NIT Kuruksbetra.

Major Head Minor Head Detailed Heart

This Revised Preliminary Estimate framed by Er. Iqbal Singh, Executive Engineer, Karnal Central Division, CPWD, Karnal and further processed by Er. Tejinder Kumar, Executive Engineer(P)-II, O/o Chief Engineer (NZ-]), CPWD, Chandigarh for the probable cost of Rs. 8,55,34,300/- i/e 3% contingencies

History

Report This revised preliminary estimate amounting to **Rs 8,55,34,300**/- i/c 3% contingencies has been framed to cover up the probable cost of above mentioned work for accord of revised A/A & E/S of the competent authority. The A/A & E/S for the above said work had been received from the Client Department vide letter No. CC/3418/6198-208 dated 24,07,2007 amounting to Rs. (6,59,06,000/- j/Å electrical provisions. In this amount the corresponding provisions of civil works was Rs. 4,89,86,540/-. Now as the civil & electrical provisions are more than 10% of the original provisions. Hence this revised preliminary estimate. The details reasons for increase in the cost of this work have been clucidated in the remarks column of the format of this RPF.

Design & Scope: This preliminary estimate is based on preliminary drawings approved by client on dated 04.06.2007, for G.F., F.F., S.F. Now the revised preliminary estimate has been prepared based on the drawings received during execution from Arch. of NTT Authority.

Specifications: CPWD Specifications 2009, vol. I & II with upto date correction slips.

Rates: As per PAR 1992 enhanced by cost index 234 (Base 100) & market rates.

Cost: Rs. 8,55,34,300/- i/c 3% contingencies.

W.C. Estit.:- Shall be met out of contingencies.

T&P: Shall be arranged by the contractor, if required.

Method: Through contract after call of tenders.

Land: Available.

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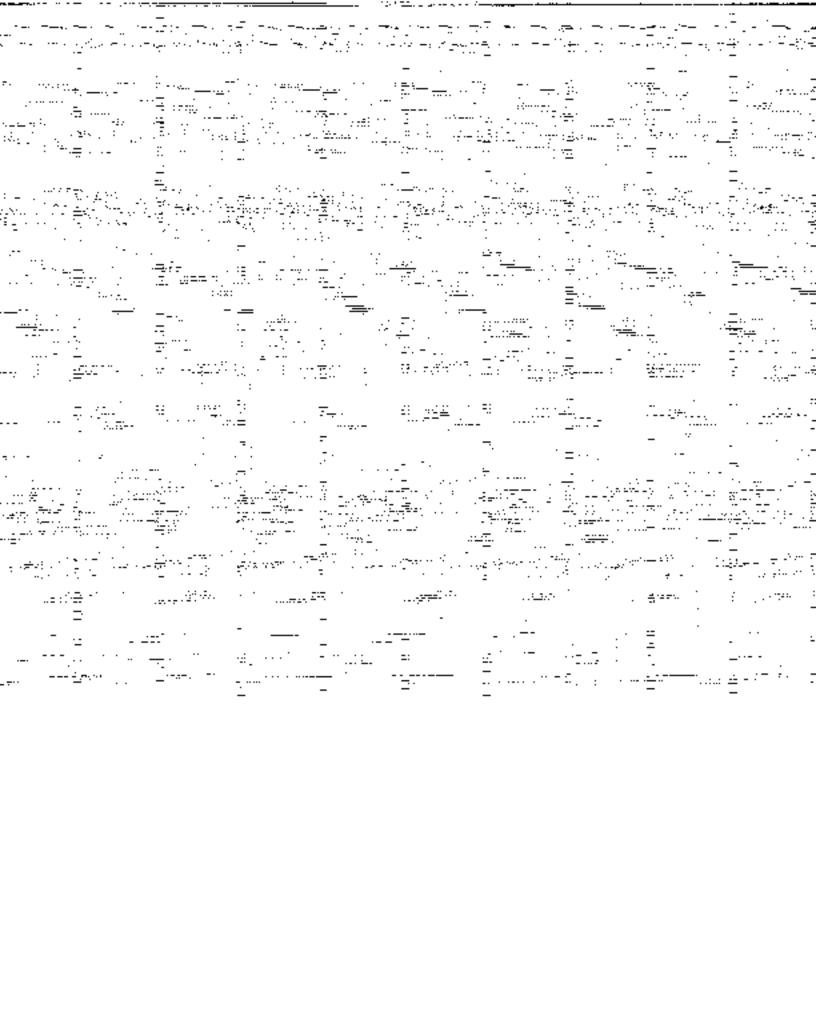
O

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Time: Work completed.

Assistant Engineer (P) C.P.W.D., Chandigarh.

Executive Engineer(P)ll C.P.W.D., Chandigarh.



		k at NIT Kuruks						
Description of item	as per origi	nal Estimate	Total	Remarks	as per Revi	sed Estimate	Total	Remarks
	Civil work	Electrical work			Civil work	Electrical work		-
Main Building	45165108.00	7013963.00	52179071 00	As per Annexure-I & III	55549497.00	7013963.00	62563460.00	As per Annexure-I & II
Development work	1382402.00	9250000.00	10632402.00	As per Annexure-II & III	1483110.00			As per Annexure-II & I
Horticulture	239148.00	· 	239148.00	As per Annexure-II	313713.00		313713.00	As per Annexure-II
			63050621.00				82220804.00	
Add 1% cess			630506.00				822208.00	
			63681127.00				83043012.00	
Add 3% contingencies		·	1910434.00		·		2491290.00	
		Grand Total	65591561.00	·		Grand Total	85534302.00	
		Say Rs.	65591600.00			Say Rs.	85534300.00	-
			Or		,			
20/11			20111				DUC'Y	
Assistant Engineer (P)			Executive Engi				Superintending	
CPWD, Chandigarh			CPWD, Chandi	garh		:	CPWD, Chandi	garh
Revised preliminary estim department for obtaining r	ate amounting to revised A/A and E	Rs. 8,55,34,300/-	(Rs. Eight crore ent authority.	Fifty Five lacs Thirty Fou	r Thousand and	Three Hundred on	ly) is hereby sub	mitted to Client
				N				
			Rec					
			Chief Engineer					

	Name of Work: C/o Administrative Block at N	VIT Kurukshet	ra.							000	000
	value of work. Containings are								1 D 41 4	(4)-40	Remarks
No	Description of item	as	er or	iginal Estin	nate	Remarks		Unit	d Estimate	Amount	Acmai in
0		Qty	Unit	Rate	Amount	4	Qty	Unit	Rate	Amount	· ,
	Civil work				<i>y</i>					1	
	RCC framed structure upto six storeys			-						1000101000	Di di managa
1	Floor height 3.35mtr. (Office / College /	3925.00	sqm	2920.00	11461000.00		4552.00	sqm	2920.00	13291840.00	Plinth area increase as per Archt. Dr
	Hospital)			ì			7				Received during
	(iospital)						1				execution from Arc
						-	ļ				of NIT resulted
					·						increase in cost
						(į		this work
				İ							
											14335022.00
						12360492.00	4550.00		229.17	1043182.00	
1.2	Every 0.30 m additional height of floor above	3925.00	sqm	229.17	899492.00	"A"	4552.00	sqm	229.17	1043 102.09	do
	normal floor height of 3.35 m (125 - 0.55/0.30				4.4		7		1.50		
	= 229.17						 	-			
			<u> </u>					-			
3	Extra for							 			
2 1	Every 0.3 mtr. Additional height of floor above	1575.00	sam	125.00	196875.00		1862.00	sqm	125.00	232750.00	do
3.1	normal floor height of 0.65mtr. (on ground	1373.00	Jun						}		
	floor area only)						\mathcal{\gamma}	1			
	1									1	
3.2	Resisting earth quake forces	3925.00	sqm	250.00	981250.00		4552.00 🗴	sqm	250.00	1138000.00	do
								-	000.00	281453.00	do
3.3	Larger module over 35 sqm.	1279.33	sqm	220.00	281453.00		1279.33 🗸	sqm	220.00	281453.00	00
			<u> </u>	75.00	440405.00	 	1962.00		75.00	139650.00	do
3.4	Termite proof treatment (On ground floor area)	1575.00	sqm	75.00	118125.00		1862.00	sqm	73.00	100000.00	
	:		ļ			 	.+	+	 		
	Internal water supply & sanitary installations	12360492.00	%	4.00	494420.00		14335022.00	%	4.00	573401.00	do
4	(Office / College)	12360492.00	70	4.00	454425.55		7	1			
	(Office / Conege)			 			1	-	1		
5	External service connection	12360492.00	%	3.75	463518.00	T	14335022.00	%	3.75	537563.00	do
-			T		14896133.00					17237839.00	
	Add cost index 134% (approved cost index for	14896133.00	%	134.00	19960818.00		17237839.00	%	134.00	23098704.00	
	kurukshetra 234 as on 30.06.2006 over PAR-					·	X				
	92 as base 100) on all items.				34856951.00	1	N. N.		!		'X'

			s ner Arl	ginal Estim	3(E	ftemarks	25	per Re	evised Esti	ma <u>te</u>	Remarks
ነ።	Description of item	Qty	Unit	Rate	Amount	- ,		Unit	Rate	Amount	
	Extra provisions Glass mosaic tiles	126.00	 - sqm	1600.00	201600.00		5.00	sqm	1600.00		Extra for provision a as per detailed drg. re
			· : 	! 		 	´ 	<u> </u>	<u> </u> 	 	from Arch, which r in increase in some in also saving in some items as per execution at the site.
2	:Extra for providing vitrified tiles in lieu of ordinary flooring	1078,00	sogna -	1116.65	1203964,00	A/R	1100.00	educ	1116.85	1228535.00	
3	Extra for providing granite stone flooring in Iseu of codinary flooring	264.00		2333.80	615123 00	A/R	482.00 -\$2	sqm	2333.80	1124892.00	
4	Fixure for providing aluminium door & wandows instead of speel section windows !	1828.00		165.80	303082.00	A/R	7877.00 	kß.	155.80	1306007.00 	
5	Fixtur for earth filling in ground floor due to	1310.00	. <u>i</u> 	139.64	210856,00	A/R	1510,00	. cum	139.64	210856.0	0do
Ė	Extra for water proofing of terrace gardens instead of mudphaska.	46().D()	sqm	269.10	123786.00	A/R	1527.87	.:. sqin	269.10	411150.0	0do
7	Extra for providing aluminium grill instead of M.S.	2352.00	kg	250.00	588000.00	A/R	297.00	kg	250.00	74250.0	Ódo-
8	Extra for sandlex mart finish on outer starface of building instead of water proofing observat paint.	1025,00	. sam	58.90	58323.00	A/R	5046.00 え	: : - !	56.90	287117.0	•-do
u	Extra for provision of clay tiles on outer surface of pullding instead of snowcem.	5 2.60	i . • sopen	350.20	179302.0		0.00	: इस्तात	-} <u>3≅0.20</u> } ·	, - ·- - φ. α	O ₁ -do-
<	Extra for providing stainless steel realing for stainless.	307.00	<u>k</u> g	270.85	631510	0 A/R	00.186	kg	1 2 70.85	1B4445.0	do-

11		°° ≒ ¢	Unit	Kate ————	Amount O	<u>-@-@</u>	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Ö—¢)—()—()	000	
	Extra for providing track deck sheets for top dome. (Polycarbonate sheet).	153.00	sqm	4937.00	755361.00	A/R	228.12	sqm	4937.00	1126228.00	do
	Extra for trimix concrete with sub base course 1:5:10 outside the main building	4674.00	sqm	564.87	2640202.00	A/R	4674.00	sqm	564.87	2640202.00	do
13	Extra for boundary wall 4' height.	291.00	metre	992.23	288739.00		291.00	metre	992.23	288739.00	do
14	Extra for provision of steel gate	450.00	kg	29.15	13118.00		450.00	kg	29.15	13118.00	do
15	Extra for provision of truss in slanting from	7890.00	kg	24.30	191727.00		52780.00	kg	24.30	1282554.00	Increase in weight trusses due to re
	ground level to top of terrace.						1011				structural drawing rec from architect result cost of work as per
		8415			•						execution at the site.
16	Extra for factory made kerb stone.	300.00	metre	200.10	60030.00		0.00	metre	200.10	0.00)do
17	Extra for brick work toe-wall	180.00	metre	217.30	39114.00		180.00	metre	217.30	39114.00)
	Add cost index 40.96% on extra provisions on	6717966.00	ç%	40.96	7556478.00 2751679.00		8914534.00	%	40.96	10225211.00 3651393.00	
	all except item No. 10 & 11 Total of 'X' + 'Y'				10308157.00 45165108.00	'Y'	Total of 'X'	+ 'Y'		13876604.00 54213147.00	

	A second state of the seco			C. 4	· · · · · · · · · · · · · · · · · · ·	Salah santa ya kacamata ka		•			•	•
		00	Jun C	Cate	Amount O	_0_0	Qty O	Unit	Kate O—O—	А то ипі	000	
,	More Extra provision as per actual at site which were not covered in PE.											
	Armstrong flase ceiling	0.00	sqm	0.00	0.00		505.00	sqm	900.00	454500.00		
	Aluminium sheet false ceiling	0.00	sqm	0.00	0.00	new Jam	127.00	sqm	1350.00	171450.00	executed as requirement department in increase	per actual of the cli which resul
-	Earthen pivot tiles on floor	0.00	sqm	0.00	0.00		444.00	sqm	1600.00	710400.00	work	
	Grand Total				45165108.00		Grand Total		1000.00	55549497.00 55549497.00		
	A BILLING									Alus		
	Assistant Engineer (P), CPWD, Chandigarh									Executive Engine		
		1.					1					

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	121 N CK 101 111 112			·					! cyised Esti		Remark
5.50	Description of item			inal Estemate		Remarks	Ory	Vaic	Rate	Appopunt	
		Qty	Linit	Rate	Amount		Oly—	·	_	TEAT - 11	
								l		· 	
	Development work	- []- -				L., -		·	
١.	Overhead tank without independent staging	100000.00	sqm .	4.75	47500.00	4.1	L3400.00	sqm	4.75	81750.00	— —
Ι΄.	.014 11634 1241							<u> </u>	ļ 	400000 00	
2	Sewer	5600. 0 0	squin	24.45	136920.00	5.3.	5600.00	sgm	24.45	136920.00	L
		· - ··			——·· - · ·	:	<u> </u>	₹.		I	32 6030 -0
3	Water supply distribution lines 100mm dia & below	5600.00	sym	17.90	100240.00	\$,4.1	5600.60	sqm	17,90	100240.00	
<u>.</u>	File Alemilianian lines	\$600.00	squi	10.20	57120.00	5.4.l	1 5600.00	; sqna	10.20	57120.00	
1-	Filter water supply distribution lines					<u>. </u>		+ -	÷		
				<u>·</u> . 29.2 0	163520.00	5.5	As per fi	<u>!</u>	amount	650000.00	
5	Stone water drain	≤600 .00					- Ala per li	· ·		1006030.00	4
i				;	- 			!		100000000	<u>1</u>
6	Rain water harvesting				200000.00	<u> </u>	<u> </u>	<u>.</u>			
ľ					705300.00			<u> </u>	:		<u> </u>
	Add cost index 134% (approved cost index for kurukshelta 234 as on 30.06.2006 over PAR-92 as base 100) on all items except item No. 6.	505300.00	%	134.00	677102.00		356030.00	%	134.00	477080:00	
			··-		1382402.00	·			 	1483110.00	<u>-</u>
	· · ·			i	- /202 <u>10210</u>		 	•			
1			r — I	"				· .		<u> </u>	i
ļ- ·	Horticulture Operation	5600.00	sqm	18.25	102200.60	Ţ ·- <u>-</u>		Ť		313713.00	<u> </u>
Ĺ				-	102200.00	-	"	†-			
	Add dom index 134% (approved cost index for kuruksherra 234 as on 30.06,2006 over PAR-92 as base 100) on all nems.	(1) <u>72</u> 200 00	·	134.00	135948.00			†	' — :	0.00	! : !
			· · · · · · · · · · · · · · · · · · ·		239148.00	<u> </u>	.:	· · –	<u> </u>	313713.00	-
į	Assistant Engineer (P). CPW18, Chandigorb			:]		+	1		Beeldave Engla CPWD, Chandi	

					0.00
	<u>, a b p</u> c	<u> </u>) <u> </u>	9 <u>00</u> 0	
4 Provision for Acs 150 Ton capacity @ 25,000/- yer ton including stubliners		i. 3750000,000	1	3750D00.00	·
S Provision for 2 Nos 13 passengers lift	L.\$.	экнаріюньов		3(xi0000.00	
		9250000.00		9250000.00	
Electrical provisions (Alexand)	- :· ·· ···				
SITC of 500 KVA neutrons type sub-station equipment for Admp. Black building at NII Karakshetra		:		1720950.00	
7 a) Provising of Hot & Cold cassence type Air conditioners		- i		3147371.00	As per the addit request & A/A & issued by NIT part
b) SELC of 320 KVA DiG set at NET Kurtikshetral		<u> </u>		3742200,00	
			 	17860521.00	
A CONTROL OF THE PARTY OF THE P				Mes	
Assistant Edgineer (P), CPWD, Chandigurb			· · · · · · · · · · · · · · · · · · ·	Executive Engin	

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To consider & approve the revised cost estimate for Providing & Installation of Electrical Sub-Station HT/LT Distribution including Street Lightening & Feeder Pillar etc. in Non-Residential area at NIT, Kurukshetra.

The above mentioned work was approved in the 11th meeting of B & WC vide Agenda Item No.11.3 held on dated 28.07.2009 for an amount of Rs.801.40 lacs which includes (i) Providing & Installation of Electrical Sub-Station HT/LT Distribution i/c street lighting & feeder pillars etc. non residential Area at NIT, Kurukshetra for an amount of Rs. 578.00 lacs and (ii) Providing & Installation of Electrical sub-station HT/LT Distribution and fidder pillars in residential area at NIT, Kurukshetra for an amount of Rs. 223.40 lacs. It was also discussed in the 15th meeting of B& WC while reporting on the action taken of 14th meeting of B&WC vide Item No. 14.1 and it was decided that the work of Providing & Installation of Electrical sub-station HT/LT Distribution and feeder pillars in residential area at NIT, Kurukshetra should be taken in the 2nd phase. During execution of work lot of changes were made in non-residential area such as reduced length of LT Cables from Sub-Stations to existing buildings/hostels etc., feeder pillar added in between them, increase in load of the various buildings, rating & capacity of cable, switch gears. Additional works like providing HT supply to Mega Boys Hostel & Administrative Block, replacement of old LT Panels of existing buildings & providing HT service/Bulk supply connection from 33 KVA Sub-Station, UHBVN to metering room near main gate on Kirmich Road were executed during construction. Now, the Chief Engineer, CPWD has submitted the revised cost estimate amounting to Rs. 724.90 lacs for non-residential area for A/A & E/S.

The B & WC may consider and approve the revised cost estimate for the above cited work for an amount of Rs. 724.90 lacs.

	Estimate has
	approval of the competent authority.
))	
OHC	भारत सरकार भारत सरकार कार्यालय मुख्य अभियन्ता(वै०)उ० क्षे० केन्द्रीय लोक निर्माण विभाग, पूर्वी खण्ड—1, तल—5 रामा कृष्णा पुरम, नई दिल्ली—110066
Japas 1	भारत सरकार
JAM!	कार्यालय मुख्य अभियन्ता(वै०) उ० क्षे क्रिक्ट
) :	केन्द्रीय लोक निर्माण विभाग, पूर्वी खण्ड-1, तल-5 रामा कृष्णा पुरम, नई दिल्ली-110066
)	16-01 -0 011-36101460
)	E-mail: ceenzpwd@ rediffmail.com
0	0 3/9/1/2
• •	सं0: 42/26/11/EE(E) P-I/CE(E)NR/2012, 1344182 (m) विनांक: 67/8/2012
) ()	सेवा में, The Director The Director The Director
	The Director Chairman Director's Office Received on 91812
0 /	National Institute of Technology (Institute of National Importance) Received on
0 -	(Institute of National Importance) NIT, KURUKSHETRA. S
0	विषय - Revised Preliminary Estimate for A/A & E/S and release of additional
(3)	funds.
0	कार्य का नाम:-Providing and installation of Electrical Substation HT/LT
	Distribution including street lighting and Feeder Pillars at non-residential area at NIT KURUKSHETRA.
920	
6	संदर्भः- Your office letter No. C.C./No.49/1212 dated 05.03.2012
0	उपरोक्त विषय से संबंधित आपके संदर्भित पत्र के अनुसार संशोधित प्रारम्भिक अनुमान रू० 7,24,89,538 /— (सात करोड चौबीस लाख नवासी हजार पांच सौ अड्तीस) का मुख्य अगियन्ता(वै०)ज०
	क्षेo की स्वीकृति के पश्चात आपके कार्यालय को सक्षम अधिकारी से प्रशासनिक अनुमोदन एवं व्यय स्नीकृति
()	प्रदान करने हेतु भेजा जाता है !
0	यह पत्र मुख्य अभियन्ता(वै0) उ० क्षे० की अनुमति से जारी किया जाता है !
\bigcirc	संलग्नः Revised Preliminary Estimate Amounting Rs.7,24,89,538/
\bigcirc	10
Ofr 2	अधीक्षण अभियन्ता(वै०)यो०एंव प्रशा०
()	प्रतिलिपिः
\bigcirc	1. अधी0अभि0(वै0)च0के0वै0परि0—I, के0ला0नि0वि0, केन्द्रीय सदन तीसरा तल सैक्टर—9, चण्डीगढ़
()	के पत्र सं 23(130) / CCEC — I/2012 1039 dated 04.06.2012 के अनुसार सूचनार्थ !
()	N.LT. KURUKSHETRA
ym e	Dy. Nc. 5361 Date 9 18/12
A. S.	E M (c) S Ch Me
ghuraj sir H	Hu CV We Jet Jes Jeso
	TO A STATE OF THE



पाल शरधना केद्रीम लेक निर्माण विभाग अधीरण अभियंता (वैद्युत)। चर्ण्डामद केन्द्रीय नेष्ट्रा गरिमडल 1, केलोनिमि, केन्द्रीय सदन, मैयटर-१, एक्टीएक दुरभाष एवं परिष्य अख्यों (५:५४ ५/१३)। १ grang -- 0177-2741778



GOVEOFINDIA

CENTRAL PUBLIC WORKS DEPARTALINT Superintending Engineer (Light). Charalgach Central Digit Crisis L. CPWD. Kendrica Sadan, Sector 9. Chandigmir. Phone & FAN No. 0(72/2)/10(13) Phone 04/2/2, 12/7/6

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ina n∦wi-cum-ncharge(E&M). Hobi. Administration block.

NH≓Kurakshetra.

devised Preliminary Estimate for AA & ES and release of additional bands for the work N. P. "Providing & Installation of Electrical Sub Scotton UTILT Distribution including Screet lighting and feeder pillars at non-residendial area at NYT Koroushetra.

on 42(26/C)/EE(E)P-06.E(E)NR/2012/1344 (Hinds) dated 07:08:2012 of Ret Superintenting Engineer(Flect.)Planning & Adria. On the CF(Lieet.)50t, CPWD, New Office

Chief Lagricul Held iNR vide above adjust fatigues as subingled are never diprefirm in command the account of AA & US. String kinds be seen that the stock have atreaty from exercical as per fine requirement of NTI and ontess and corve garliest possible account of AMSES and placement of finds with the Executive Chymner [Back]. Kannel Copp 6. Electric P. Dio isoni is assemble to assort problems related to funds and his binding enough and advince in time

It is to refer invaried that necessary Alver's by gainesed in polytonic lase a Turn 98 by the gasser, no CPW73.

अमीक्षण अभियंता (देयुत),

चण्डीगढ केन्द्रीय वैध्ता, परिभंडल-1,

Copy to

Aligo Union of ploget Park of PWD Contributed A Covel Voltage New Decta los promption please

Cses once Engineer[a,k, C], Karaad Central Decreaal Division (Europe Chericatage and Copies with incorporate the Berchen series to get the revised AAXLS and in<u>begregation</u> backs

अधीष्टण अस्मियंता (वैद्युत),



भारत सरकार GOVERNMENT OF INDIA

चण्डीगढ़ केन्द्रीय वैधुत परिमण्डल-1 CHANDIGARH CENTRAL ELECTRICAL CIRCLE-I

केन्द्रीय लोक निर्माण विभाग चण्डीगढ़

Central Public Works Department Chandigarh

REVISED PRELIMINARY ESTIMATE

कार्य का नामः

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Name of work: Providing & Installation of Substation HT/LT

Distribution i/c Street Lighting & Feeder Pillar

in Non Residential Area at NIT Kurukshetra

अनुमानित लागतः रुपयेः

ESTIMATED COST Rs. 7,24,89,538

कार्यालय :अधीक्षण अभियन्ता (वै0),
चण्डीगढ़ केन्द्रीय वैधुत परिमण्डल-1,
केन्द्रीय लोक निर्माण विभाग,
तीसरा तल, केन्द्रीय सदन,
चण्डीगढ।



भारत सरकार GOVERNMENT OF INDIA

चण्डीगढ़ केन्द्रीय वैद्युत परिमण्डल-1 CHANDIGARH CENTRAL ELECTRICAL CIRCLE-L

केन्द्रीय लोक निर्माण विभाग चण्डीगढ

Central Public Works Department Chandigarh

प्रारम्भिक अनुगान *REVXS* PRELIMINARY ESTIMATE

कार्यका नामः

Name of work: <u>Panviding & Tineballation of Sub Station</u> HT/LT.

<u>Distribution</u> I/c Street lighting & Feeder Pillor

in Non Recidential Area at NIT Kurunsheere.

अनुमागित लागतः रूपयेः

ESTIMATED COST Rs. 7 24 89 5 38

<u>कर्मथालिय</u> :--अधीक्षण अभियन्ता (वै0) कण्डीगढ़ केन्द्रीय वैधुत परिमण्डल-1 केन्द्रीय शोक निर्माण विश्वाग् तीहरा क्षत, केन्द्रीय सदन, वण्डीयहर

CENTRAL PUBLIC WORKS DEPARTMENT

State:	Haryana
Branch:	E&M

Division: Karnal Central Elect. Divn.Karnal Sub-Division: Karnal Central Elect. Sub-Divn

Name of work: Providing & Installation of Electric Sub-Station, HT/LT Distribution including street lighting & Feeder Pillar in Non-Residential area at NIT Kurukshetra.

Head of Account: 8443 Deposit work

This Revised Preliminary Estimate has been framed by Er. Narender Kaushal, Executive Engineer (Elect.), Karnal Central Elect. Division, CPWD, Karnal and processed in the office of SE(E) CCEC-1, Chandigarh for the probable cost of Rs.7,24,89,538/- including 3% contingencies.

REPORT

History: The Admn. Approval and Expenditure sanction for the above work was given by NIT vide their letter No. CC/ No/610/7167 dt. 13/8/2009 for Rs. 57869147/- only. As per discussions/ meetings held with NIT authorities from time to time lots of changes made in the original scheme of work, like to reduce the length of LT cables from sub stations to existing building / hostels etc, Feeder pillars added in between them. Due to increase in load of the various buildings, ratings & capacity of cable switch gears increased accordingly. Some additional work like providing HT supply to Mega boys hostel & Admn block, replacement of old LT panels of existing buildings and providing HT service connection from 33 KV UHBVN to meeting room in NIT campus requested by NIT authorities to include in the above mentioned work as these related works are part of original HT/LT distribution work. Considering all above factor revised preliminary estimate has been prepared for obtaining Admn approval & Expenditure sanction of the competent authority. The reasons for cost variation have also been included in PE in remarks column.

Design & Scope: The following provisions have been kept in this estimate:

- 1. Three Nos sub stations inter connected with each other having 2x1000 KVA and 2x1600 KVA capacity transformers.
- 2. 4 Nos. VCB panel board in each substation, LT panel & capacitor pane of suitable capacity.
- 3. 3 Nos. VCB panel board and metering panel in metering room of the campus.
- 4. All the sub stations inter linked with 3x300 Sq.mm XLPE insulated 11 KV cable and 3x185 Sq.mm XLPE insulated 11 KV cable inside the substation from HT panel up to transformer rooms.
- 5. Suitable number of copper plate earthing sets for neutral / body earthing of transformers and body Earthing of LT panels/ capacitor panels etc.
- 6. Suitable capacity LT cables from substation to feeder pillar and form feeder pillars to existing Buildings.
- 7. Feeder pillars for street lighting and for existing buildings etc.
- 8. Suitable numbers of G.I plate/ GI pipe earthing.
- 9. 7.5 meter height octagonal pole for inside the campus and 9 mtr height octagonal poles for boundary Wall of the campus.
- 10. Suitable size GI/ HDPE pipes for laying of LT/HT cables.
- 11. 3x300 Sq.mm XLPE insulated 11 KV cable from substation No. 2 to Mega boys hostel and from 33 KV UHVBN to metering panel room and 3x185 Sq.mm XLPE insulated 11 KV cable for New Admn Block.

Method:

Through Contract

HISKNL12

Rates:

DSR-2012/ Market Rate

Time:

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Six Months

Cost:

Rs. 7, 24, 89,538/including 3% contingencies

Assistant Engineer (E)P Chandigarh Cent. Elect.

Circle-1

CPWD, Chandigarh

Executive Engineer (E)P Chandigarh Cent. Elect.

Circle-L

CPWD, Chandigarh

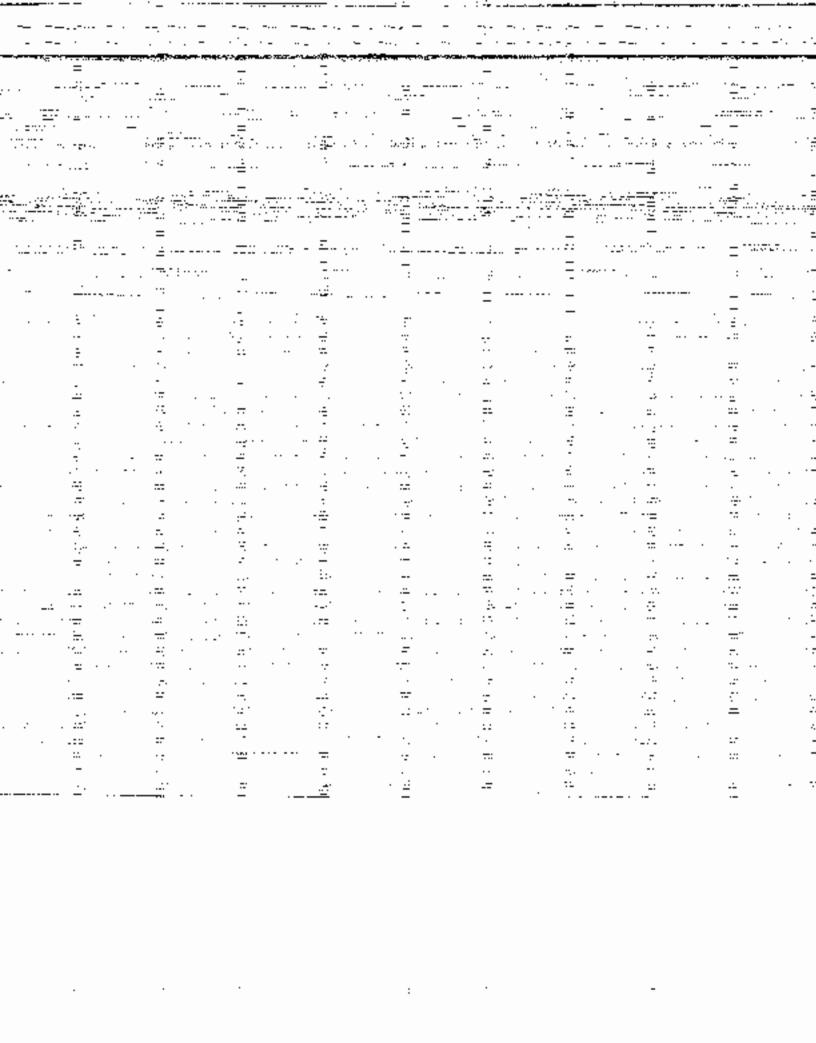
Superintending Engineer (P) Chandigarh Cent. Elect.

Circle-I

CPWD, Chandigarh

3/8/2012. CE (E) NR CPWD East Block-i, Level-5 P.IC Puram, New Celhi

HISKNI 12



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	a part seems	ingi yan			Abotrost	f Original and B	oviced Entire			A September 2000 and 1			in production		and the same
States Harrison	Т			T	ADSUACEC	of Original and R	evised Estima	ite			1	Т	Di	vision:	
State: Haryana	-			ļ							 				
Branch: E&M				<u></u>	L								St	ıb-Divn	
lame of work: Providing & Installation Feeder Pillar in Non-F						including street li	ghting &				T				
Sub-Head of estimate and			Original es	timates		Sub-Head of estir	nate and		Rev	ised estima	tes		Dit	ference	Reason
items of work	Qty.		Rate	Unit	Cos	items of work (RE	VISED)	Qty		Rate	Unit	C	ost		
												-	-		
SUB HEAD-I (EQUIPMENTS - HT PA	NEL BOAF	RD)													
INCOMING H.T PANEL - Institutional						INCOM:NG Institutional	H.T PANEL								
Supplying, installation, testing & commissioning of indoor type floor mounted metal clad, 11 KV VCB panel with 4 No. VCBs, totally enclosed & fully interlocked, horizontal drawout, horizontal isolation type breaker as per IS 13118, as ammended up to date and additional specifications, having capacitities as mentioned below, single break, trip free mechanism, motorised charged and auto closing breaker, suitable for use on 11 KV, 3 Phase, 50 Hz A.C supply with short circuit fault level of 350 MVA. complete with self contained, fully interlocked, rack in and rack out mechanism, air insulated but encapsulated copper bus bars of 630 Amps capacity, suitable power pack of 24 volt DC, breaker featured with mechanical ON/OFF indicator with hand trip device, spring release coil, shunt trip coil and auxiliary switch of 4 NO + 4 NC and equipped with						commissioning of mounted metal or panel with 4 N enclosed &	clad, 11 KV VC Io. VCBs, total fully interlocke wout, horizont eaker as per I ded up to date an fications, havin mentioned below free mechanism d and auto closin or use on 11 KV, c supply with sho el of 350 MV/ lif contained, full in and rack on insulated by mer bus bars of 63 pitable power pac eaker featured with spring release co- auxiliary switch of	obeyonesseries of yettokanin							

following switchgears and accessories including connections suitable for 3 x 400 sq.mm and 3 x 240 sq.mm XLPE 11 KV cable (cable entry from bottom sides), end

Note: The drawing should be got

termination itch gears:

accessories including connections suitable fcr 3 x 400 sq.mm and 3 x 240 sq.mm XLPE 11 KV cable (cable entry from bottom sides), end

Note: The drawing should be got

termination witch gears:

) (0	00	0		00	0 (
Sub-Head of estimate and		Original es	timates	Sub-Head of estimate and	T	Re	vised estimat	es	The second description of the second	Difference	Reason
Items of work	Qty.	Rate	Unit	Cost items of work (REVISED)	Qty		Rate	Unit	Cost		
		A				1		1.			
A INCOMING				INCOMING		T				•	
(a) 1 No. 630 Amp. VCB				1 No. 630 Amp. VCB		1					
(b) 1 No. 11 KV/ 110 Volts PT Class 0.5	ı			1 No. 11 KV/ 110 Volts PT Class (1					
accuracy and 100 VA burden with 1	- 1			accuracy and 100 VA burden with							
No. Volmeter (0-15 KV) digital type		i	l	No. Volmeter (0-15 KV) digital ty	pe	}					
selector sw itch for voltmeter and			!	selector switch for voltmeter a				1			
MCB for HT metering upto 12 KV on				MCB for HT metering upto 12 KV	on .	i					
incomer.				incomer.				1	1		
(c) 1 No. (0-300A) dual scale Ammeter,	1			1 No. (0-300A) dual scale Ammel	er,					· .	
digital type, selector swtiches for	1			digital type, selector swtiches	for			1			
ammeters.		·		ammeters.	-	i		1			
(d) 3 No microprocessor based	1			3 No microprocessor bas	ed						
numerical relay with O/L, E/F and	1			numerical relay with O/L, E/F a	nd	1				i	
S/C protection.				S/C protection.		1					
(e) 1 No., 1 set of dual core dual ratio 3	ı			1 No., 1 set of dual core dual ratio	3	T		 			
CTs 300/ 150/ 5/ 5 A of 15VA burden		1	1	CTs 300/ 150/ 5/ 5 A of 15VA burd	en						
and accuracy Class - 0.5 for	i			and accuracy Class - 0.5							
metering and class 5 P 10 for	l			metering and class 5 P 10							
protection.				protection.	.					: 1	
B OUTGOING				OUTGOING	+	-					
(a) 3 Nos 630 A VCB				3 Nos 630 A VCB	 	1		· · · · ·			
(b) 3 Nos - (0-100A) Ammeters, dual				3 Nos - (0-100A) Ammeters, du	al	1					
scale digital type & selector switches				scale digital type & selector switch	25				1		•
for Ammeters.				for Ammeters.						1	
(c) 9 Nos, Microprocessor based				9 Nos, Microprocessor base	-d			<u> </u>			
numerical relays with O/L, E/F & S/C				numerical relays with O/L, E/F & S		1 1					
protections.				protections.							
(d) 3 Nos 1 - set of dual core dual ration				3 Nos 1 - set of dual core dual rate	20						
3 CTs 100/ 500/ 5/ 5 A of 15 VA				3 CTs 100/ 500/ 5/ 5 A of 15 %	Δ,	}					
burden and accuracy Class -1.0 for				burden and accuracy Class -1.0	~		. 1				
metering and class 5 P 10 for	1			metering and class 5 P 10	01						
protection.	3 sets	1588608.00	set	4735824.00 protection.	1	!	4005000 55				
					3	sets	1225000.00	set	3675000.00	-1090824.00	As per actua

	Sub-Head of estimate and			Original est	imates		Sub-Head of estimate and		Revi	sed estimat	es		Difference	Reasor
	Items of work	Qty.	1	Rate	Unit	Cost	Items of work (REVISED)	Qty		Rate	Unit	Cost		
	Supplying, installation, testing &						Supplying, installation, testing &							
	commissioning of indoor type floor						commissioning of indoor type floor		1			ľ		Ì
	mounted metal clad, 11 KV VCB	- 1	1				mounted metal clad, 11 KV VCB	-				,		1
	panel with 3 Nos. VCBs. totally	j			1		ganel with 3 Nos, VCBs, totally		- 1					1
		1					enclosed & fully interlocked,		- 1		i			}
	enclosed & fully interlocked,										1			
	horizontal drawout, horizontal				1		Forizontal drawout, horizontal		l					
	isolation type breaker as per IS						isolation type breaker as per IS							
	13118, as amended up to date and	1					13118, as amended up to date and	1	- 1					
	additional specifications, having						additional specifications, having							
	capacities as mentioned below,				1		capacities as mentioned below,	1 1	1		1			
	single break, trip free mechanism,						single break, trio free mechanism,		i					
		1					motorised charged and auto closing							
	motorised charged and auto closing	1			l i				1					1
	breaker suitable for use on 11 KV, 3		1.		1		breaker suitable for use on 11 KV, 3		.]		1			i
	Phase, 50 Hz A.C supply with short		1		1		Phase, 50 Hz A.C supply with short		1					
	circuit fault level of 350 MVA	1	İ				circuit fault level of 350 MVA							
	complete with self contained fully	- 1	ł		1 1		complete with self contained fully							i
	interlocked, rack in and rack out	1					interlocked, rack in and rack out		1.					
	mechanism, air insulated but				i i		mechanism, air insulated but							1 .
			'								i			l
	encapsulated copper bus bars of 630						encapsulated copper bus bars of 630	4	- 1					1
	arnps capacity, suitable power pack				1		amps capacity, suitable power pack		1			i .	ł	1
	of 24 Volt D.C breaker featured with	ļ			1		of 24 Volt D.C breaker featured with		1		1			ł
	mechanical ON/OFF indicator with	1			1		mechanical ON/OFF indicator with	1	. 1				İ	ļ
	hand trip device, spring release coil.	1			1 1		hand trip device, spring release coil.	1			1		1	
	shunt trip coil and auxiliary switch of				'		shunt trip coil and auxiliary switch of				ļ			1
	4 NO + 4 NC and equipped with	1					4 NO + 4 NC and equipped with	1 1					ì	İ
	following switchgears and				1 1				1		1			-
					1 1		1 0				, ,			
	accessories including connections						accessories including connections		-		1	1		1
	suitable for 3 x 400 sq.mm and 3 x				1 1		suitable for 3 x 400 sq.mm and 3 x		1			ļ.		1
	240 sq.mm XLPE 11 KV cable (cable)	i			1 1		240 sq.mm XLPE 11 KV cable (cable		. 1		ĺ		i	
	entry from bottom side) end	i					entry from bottom side) end	l i						
	termination with heat itch gears:				1		termination with beat itch gears:					•		1
	Note: The drawing should be got ap	J			1		Note: The drawing should be got ap							i
	INCOMING													
<u>,</u>							INCOMING						1	
a)	1 No. 630 Amp. VCB						1 No. 630 Amp. VCB				1			
D)	1 No. 11 KV/110 Volts PT Class 0.5		i				1 No. 11 KV/110 Volts PT Class 0.5							
	accuracy and 100 VA burden with 1	1					accuracy and 100 VA burden with 1					·	'	
	No. Voltmeter (0-15 KV) digital type	1			l i		No. Voltmeter (0-15 KV) digital type							1
	selector switch for voltmeter and	- 1					selector switch for voltmeter and		1					l
	MCB for HT metering upto 12 KV on		1											
	incomer.						MCB for HT metering upto 12 KV on	1	- 1					
<u>~</u>						·	incomer.							ł
	1 No. (0-300A) dual scale Ammeter,						1 No. (0-300A) dual scale Ammeter,							
	digital type selector switches for						cigital type, selector switches for	1	1					
	ammeters.						ammeters.				1			1
5)	1 No microprocessor based						1 No microprocessor based							
	numerical relay with O/L, E/F and						numerical relay with O/L E/F and				1 1			}
	S/C protection.						C/C and attention							1
	1 No. 1 Set of dual core dual ratio 3						S/C protection.							
							1 No. 1 Set of dual core cual ratio 3						· · · · · · · · · · · · · · · · · · ·	
	CTs 300/ 150/ 5/ 5 A of 15 VA						CTs 300/ 150/ 5/ 5 A of 15 VA						. *	
	burden and accuracy class- 0.5 for						burden and accuracy class- 0.5 for							
	metering and class 5 P 10 for						metering and class 5 P 10 for							
	protection.						protection.							Earlier 3 N
- 1							protocuori.					4		VCB Pa

		Original est	imates		Sub-Head of estimate and		Re	vised estimate	es	1	Difference	Reason
Sub-Head of estimate and Items of work	Qty.	Rate	Unit	Cost	Items of work (REVISED)	Qty		Rate	Unit	Cost		
OUTGOING	a.y.				OUTGOING							proposed for
		 			2 Nos 630 A VCB	-						residential
2 Nos - (0-100A) Ammeters, dual		 			2 Nos - (0-100A) Ammeters, dual:							area Later it
scale digital type & selector switches			l . i		scale digital type & selector switches				· .	j		was decided
for Ammeters.	'				for Ammeters.							to provide
					6 Nos, Microprocessor based				· · · · · · · · · · · · · · · · · · ·			New HT
) 6 Nos, Microprocessor based	İ	j .			numerica relays with OAL, E/F & S/C							supply
numerical relays with O/L, E/F & S/C	ļ				protections.				· .			system to
protections.					2 Nos 1 - set of dual core dual ration					 	7	Non-Resdi.
2 Nos 1 - set of dual core dual ration	!				3 CTs 100/ 500/ 5/ 5 A of 15 VA							Area of the
3 CTs 100/ 500/ 5/ 5 A of 15 VA												campus
burden and accuracy Class -1.0 for			1		burden and accuracy Class -1.0 for				1			only.As per
metering and class 5 P 10 for			l		metering and class 5 P 10 for					825000.00	-1528492.00	
protection.	2 set	1176746.00	set	2353492.00	protection.	1	set	825000.00	set	525000.00	-1526492.00	actual
H.T METERING					la de la constitución de la cons							
Supplying, installation, testing and					Supplying, installation, testing and					1		
commissioning of compartmentalized					commissioning of compartmentalized							
cubical type fixor mounted self	1		1		cubica type floor mounted self			ļ			ĺ	1
supported H.T metering panel of					supported H.T metering panel of				1			
suitable size with cable entry space		1			suitable size with cable entry space		1			i .	į.	
on both sides and having suitable					on both sides and having suitable		1	1		1		1
arrangement lockable fabricated with			1		arrangement lockable fabricated with		}].				
2mm thick CRCA sheet with					2mm thick CRCA sheet with							
supplying and fixing following	}			·	supplying and fixing following							
mountings therein duly approved and	I]			mountings therein duly approved and							
tested by HSEB, Haryana including					tested by HSEB, Haryana including					1.		Į.
powder coated painting with one coat	- 1	İ			powder coated painting with one coat					1		
of red oxide paint and two coats of	}				of red oxide paint and two coats of				1 :			
grey colcur paint and wiring			l	i	grey colour paint and wiring							1 .
connections etc. as required.	1	!		i .	connections etc. as required.] .	1	1			
	1	1										
i) HT CT's ratio 60/5 Amp with ratio					HT CT's ratio 60/5 Amp with ratio				-			
burden of 10VA/ Phase class 0.5		}			burden of 10VAV Phase class 0.5							
accuracy or suitable capacity CT as					accuracy or suitable capacity CT as							
recommenced by PSEB Punjab - 3	1				recommended by PSEB Punjab - 3				1	·		
Nos					Nos			· ·	2.			
ii) P.T 11 KV/ 100 Volts 200 VA burden			-		P.T 11 KV/ 100 Volts 200 VA burden			ļ ·				
per phase Class 0.5 - 1 No.												
por pridate Oldas 0.0 - 1 110.	-				per phase Class 0.5 - 1 No.							
ii) Digital trivectometer 3 phase 4 wire					Digital trivostament - 0 -t - 1							
11 KV digital CT operated class - 0.5					Digital trivectometer 3 phase 4 wire							
with suitable CT ratio, 11 KV/ 110 V -					11 KV digital CT operated class - 0.5							1
1 No.					with suitable CT ratio, 11 KV/ 110 V -				1	1		
		100555			1 No.							As per actual
v) 11 KV terminal block - 1 No.	1 set	132550.00	each		11 KV terminal block - 1 No.	1	set	110000.00	each	110000.C0	-22550.00	-
TOTAL OF SUB HEAD-I				7251866.00				-		4610000.00		
		1	1									
SUB HEAD - II (TRANSFORMER)												

	Sub-Head of estimate and			Original es	timates		Sub-Head of estimate and		Re	vised estimate	es ·		Difference	Reason
	Items of work	Qty.	Ţ.	Rate	Unit	Cost	Items of work (REVISED)	Qty		Rate	Unit	Cost		
1	Supplying, installation, testing and		- "	,			Supplying, installation, testing and							
	commissioning of 1000 KVA,						commissioning of 1000 KVA,					ļ [.]		
	11/0.433 KV, 3 phase, 50Hz, Dyn11,		i	1		1	11/0.433 KV, 3 phase, 50Hz, Dyn11,					1		
	indoor ONAN type, copper wound		ł				indoor ONAN type, copper wound			· .				
	transformer with OFF load tap					1	transformer with OFF load tap		i			i i		
	changing arrangement on HV side in						changing arrangement on HV side in							
	steps of +/- 2.5% +/- 5% & -7.5%						steps of +/- 2.5% +/- 5% & -7.5%							
	having cable end boxes on HV side						having cable end boxes on HV side			1				
	suitable for 3 x 240 sq.mm XLPE			1			suitable for 3 x 240 sq.mm XLPE		1					
	cable of 11 KV grade and 2500 Amp			1			cable of 11 KV grade and 2500 Amp		1					
	bus trunking arrangement on LV side					1	bus trunking arrangement on LV side		1		· '.			
	complete with all accessories						complete with all accessories		Ì]]		
	including first filling of filtered						including first filling of filtered		1			· [1	
	dehydrated oil and confirming to IS			1		-	dehydrated oil and confirming to IS		İ			[[
	2026 (Part 1 to Part 5) & as per						2026 (Part 1 to Part 5) & as per					l· ·	i	
	specification attached complete in all		İ				specification attached complete in all	,						
	respects as required at site.			1			respects as required at site.		}			·		
		2	Nos	941397.00	each	1882794.00		2	Nos	1000000.00	each	2000000.00	117206.00	As per actua
			<u> </u>											
2	Supplying, installation, testing and						Supplying, installation, testing and			?				
	commissioning of 1250 KVA,		1	}			commissioning of 1250 KVA							
	11/0.433 KV, 3 Phase, 50 Hz,			1	1		11/0.433 KV, 3 Phase, 50 Hz,		1 .					
	Dyn11, indoor ONAN type, copper			1			Dyn11, indoor ONAN type, copper					<u> </u>		
	wound transformer with OFF load,		1				wound transformer with OFF load,					[]		
	tape changing arrangement on HV						tape changing arrangement on HV			· .			. 1	
	side in steps of +/- 2.5% +/- 5% & -				1		side in steps of +/- 2.5% +/- 5% & -					1. 1		
	7.5% having cable end boxes on HV						7.5% having cable end boxes on HV					1	j	
	side suitable for 3 x 240 sq.mm				1		side suitable for 3 x 240 sq.mrn							
	XLPE cable of 11 KV grade and						XLPE cable of 11 KV grade and							
	2500 Amp bus trunking arrangement						2500 Amp bus trunking arrangement			1	Υ,			
	on LV side complete with all						on LV side complete with all		1					
	accessories including first filling of						accessories including first filling of		1					
	filtered dehydrated oil and confirming						filtered dehydrated oil and confirming							
	to IS 2026 (Part 1 to Part 5) & as per						to IS 2026 (Part 1 to Part 5) & as per							•
	specification attached complete in all		1				specification attached complete in all							
	respects as required at site.				İ		respects as required at site.							

				\bigcirc		00	0.0.0.0.0	0	0	0.0.		20.0	-0-0	0-0
a see a see a		party see a	The same of	MINISTER STATE OF THE STATE OF	THE PARTY OF THE PARTY OF	State of the State		Stor Oktobel	15 / S / S / S / S / S / S / S / S / S /	har a charlestock if on name	Walter Tale		Difference	Reason
	Sub-Head of estimate and			Original esti			Sub-Head of estimate and		Rev	vised estimate Rate	Unit	Cost	Dinerence	Ttouson.
	Items of work	Qty.		Rate	Unit		Items of work (REVISED)	Qty		Rate	Offic			Due to
}	Supplying, installation, testing and				. 1		Supplying, installation, testing and commissioning of 1600 KVA,			. 1			•	increase in
	commissioning of 800 KVA, 11/0.433			1			11/0.433 KV, 3 Phase, 50 Hz,			ì				load of the
	KV, 3 Phase, 50 Hz, Dyn11, indoor				1		Dyn11, indoor ONAN type, copper							various
	ONAN type, copper wound						wound transformer with OFF load,					.		buildings by
	transformer with OFF load, tape						tape changing arrangement on HV		ĺ	İ			•	authonties
	changing arrangement on HV side in				i		side in steps of +/- 2.5% +/- 5% & - 7.5% having cable end boxes on HV							800 KVA
	steps of +/- 2.5% +/- 5% & -7.5%				i		side suitable for 3 x 185 sq.mm							capacity
	having caple end boxes on HV side						XLPE cable of 11 KV grade and							transformers
	suitable for 3 x 240 sq.mm XLPE						3000 Amp bus trunking arrangement							can not take
	cable of 11 KV grade and 2500 Amp						on LV side complete with all							the additional
	bus trunking arrangement on LV side						accessories including first filling of filtered dehydrated oil and confirming			. 1				load so
	complete with all accessories						to IS 2026 (Part 1 to Part 5) & as per							capacity of
	including first filling of filtered			·			specification attached complete in all							the
	dehydrated oil and confirming to IS		[respects as required at site.					}		transformers
	2026 (Part 1 to Part 5) & as per											l i		enhanced
	, , ,				ĺ								•	according to
	specification attached complete in all	_		047000.00	aaab	1625670.00		,	Nos	1435000.00	each	2870000.00	1234322 00	requirement.
	respects as required at site.	2	Nos	817839.00	each	1635678.00			NUS	1433000,00	Gacii	2070000.00	1204022.00	
		-	 			• • • • • • • • • • • • • • • • • • • •								
4	Supplying, installation, testing and						Supplying, installation, testing and			7			-	
	commissioning of following sizes of						commissioning of following sizes of			· ·				
	Pre-fabricated sandwitched bus		ļ			`	Pre-fabricated sandwitched bus		Į ·					1.
	trucking suitable for 415 volt 3 phase 4 wire 50 Hz AC supply system		1				trucking suitable for 415 volt 3 phase 4 wire 50 Hz AC supply system		1					
	(between transformer's LT side &					-	(between transformer's LT side &							
	incomer of LT Panel side) of			1	1		incomer of LT Panel side) of					1 '		
	aluminium bus bars complete with			}			aluminium bus bars complete with							At Sub
	bends, expansion joints, fire barners,						bends, expansion joints, fire barriers,			}				station No.3
	copper flexible end connections at		1	ŀ			copper flexible end connections at							Transformer
	both ends earthing with 2 runs of copper earth of size 25mm x 5mm						both ends earthing with 2 runs of copper earth of size 25mm x 5mm							s rooms are
	strips etc. including necessary		1				strips etc. including necessary		1					at some
	supports etc. as per specifications						supports etc. as per specifications							from L7
	attached as required.						attached as required.							Panel room
4.1	1600 Arr.ps (2 Transformer to L.T	1					1600 Amps (2 Transformer to L.T							so it was no
4.0	Panel)	32	mtrs	12356.00	metre	395392.00		<u> </u>		-		0.00	-395392.00	
4.2	2000 Amps (2 Transformer to L.T Panel)	32	mtrs	15062.00	metre	481984.00	2000 Amps (2 Transformer to L.T			40000.00		0.7000	405040.00	provide bus
	i direi)	32	inus	13062.00	metre	481984.00	ranei)	32	mtrs	19300.00	metre	617600.00	135616.00	
4.3	2500 Amps (2 Transformer to L.T	<u> </u>					2500 Amps (2 Transformer to L.T							arrangemen as pe
	Panel)	32	mtrs	18828.00	metre	602496.00			mtrs	22150.00	metre	708800.00	106304.00	P

Sub-Head of estimate and		 Original est	imates	·	Sub-Head of estimate and		Re	vised estimate	<u>es</u>		Difference	Reason
items of work	Qty.	Rate	Unit	Cost	Items of work (REVISED)	Qty		Rate	Unit	Cost		
					Supplying and laying of 5 Nos 3½ core x 630 sq.mm XLPE aluminium conductor armoured cable of 1.1 KV grade in ground in the existing pipe/ in existing open duct including fabrication, supp ying and installation of factory built cable end box on transformer suitable for 5 Nos 3½ x 630 sq.mm cables with providing and fixing of brass compression glands for 5 x 3½ x 630 sq.mm UG cable including making connections, testing etc. as required.	•						At Substation No.3 Transformer s rooms are at some distance from LT Panel room so it was no possible to provide bus trunking arrangemen so 5 No LT
					ai Length of cable 48 mtrs	1	Job	920235.00	Job	920235.00	920235.00	cable of size
												3x1/2
		 			bi Length of cable 40 mtrs	1	Job	779226.00	Job	779226.00	779226.00	x630sqmm
												laid from L panel roor upto both th transformer rooms lai as pe actualas pe actualt
TOTAL OF SUB HEAD-II				7187092.00						40445964.00	2059760.00	
										10145861.00	2958769.00	
												·
SUB HEAD - III (MAIN L.T PANEL)					SUB HEAD - III (MAIN L.T PANEL)							

		000		SHEW PROPERTY.							The same of			A STATE OF THE PARTY.	-
Sub-Head of estimate and		Original est	imates		Sub-Head of estimate and		Re	vised estimat	es.	т		Differen	ce Re	ason	٦
Items of work	Qty.	Rate	Unit	Cost	Items of work (REVISED)	Qty		Rate	Unit	+	Cost		- 112		1
Supplying, installation, testing &	4.9.	1100	- J		Supplying, installation, testing &	۳.,		Tutte		 			_	-	1
commissioning of cubical type LT					commissioning of cubical type LT			1		ì					
panel suitable for 415 V, 3 Phase, 4					panel suitable for 415 V, 3 Phase, 4			1							1
wire 50 Hz AC supply system having			1 1		wire 50 Hz AC supply system of					1			-		i
front face area 40 sqmtr (Approx)					suitable size fabricated in		, i			1					
	1		.					İ	ļ	1			i		
fabricated in compartmentalized	ĺ	1			compartmentalized from CRCA			!							
(preferably) design from CRCA sheet			i i		sheet steel of 2mm thick for frame			1							
steel of 2mm thick for frame work	1				work and covers, 3mm thick for			j	١.	ł					1
and covers, 3mm thick for gland					gland plates including cleaning &					1					
plates including cleaning & finishing			1		finishing complete with 7 tank				1	1			ł		1
complete vith 7 tank process for					process for power coating in			} .	ĺ	1			1		1
power coating in approved shade,	1			1	approved shade, having 2000 Amp				1	1.					
having 4000 Amp capacity extensible			i i	·	capacity extensible type 4 strips				l						1
type TPN Aluminium Alloy bus bars					Aluminium Alloy bus bars of high										1
of high conductivity DMC/ SMC bus	i				conductivity DMC/ SMC bus bar				ļ.						
bar supports, with short circuit	ļ				supports, with short circuit withstand					-			1		1
withstand capacity of 31 MVA for 1										i			i		
Sec. bottom base channel of MS	į				capacity of 31 MVA for 1 Sec.		•			1			İ		
section not less than 100mm x	!	ĺ	1 1		bottom base channel of MS section				1						
50mm x 5mm thick fabrication shall	1				not less than 100mm x 50mm x 5mm		İ			1					
be done in transportable sections,	1				thick fabrication shall be done in			1							İ
	1		1		transportable sections, entire panel		ļ	1 .		1					1
entire panel shall have a common			1 1		shall have a common copper earth		. ;		1	1					
copper earth bar of size 25mm x					bar of size 25mm x 5mm at the rear		١.			1		,	1		.[.
5mm at the rear with 2 Nos, earth					with 2 Nos, earth stud, solid			1		1.					
stud, solid connections from main					connections from main bus bar to								ľ		
bus bar to switch gears with required	1				switch gears with required size of										1 .
size of A. bus bars and control	İ	1	1 1		Al. bus bars and control wiring with								1		
wiring with 1.5 sq.mm PVC insulated	.				1.5 sq.mm PVC insulated copper			1							
copper coriductor S/C cable, cable					1.5 Sq.fikii PVC insulated copper	!							1		1
alleys, cable gland plates in two half		,			conductor S/C cable, cable alleys,										
including providing following switch	ļ	` .			cable gland plates in two half										
gears:					including providing following switch			ļ							
INCOMING					nears: INCOMING										
2 Nos 1600 Amps each four pole		-	·							ļ]
horizontal drawout type air circuit	1				2 Nos 1600 Amps each four pole	1		٠.	١.						
breaker of fault breaking capacity 50					horizontal drawout type air circuit								1		
KA (lcs=lcu upto 433V) manually					breaker of fault breaking capacity 50	- 1									1
	.				KA (lcs=lcu upto 433V) manually	ļ									
operated, fitted with interlocked door,		,			operated, fitted with interlocked door,	1				ļ					
automatic safety shutters,				l	automatic safety shutters										Ì
mechanical ON/OFF and service/				1	mechanical ON/OFF and service/	· [. 1				
test/ isolated position indicators and	1		1		test/ isolated position indicators and]				1	}				
frame eartl ing contact, confirming to					frame earthing contact, confirming to	1				1			İ		
IS-13947-2 1993 as amended up-to-	.				IS-13947-2 1993 as amended up-to-										-
date complete with following	1				date complete with following	- 1					}				İ
accessories for each ACB.	1				date complete with following	[, 1				l
					accessories for each ACB.	.									
Independent manual spring closing		 													
mechanism - 1 No.					Independent manual spring closing										1
Microprocessor release (EMI & EMC		 			mechanism - 1 No.										
certified) for over current, earth fault					Microprocessor release (EMI & EMC										1
and short circuit protection - 1 Set	1],	certified) for over current, earth fault										
Set					and short circuit protection - 1 Set	- 1				ı				,	1

	4											Difference	Reason
	Sub-Head of estimate and		Original es	timates		Sub-Head of estimate and			vised estimat	es Unit	Cost		1000011
	Items of work	Qty.	Rate	Unit	Cost	Items of work (REVISED)	Qty		Rate	Unit	COST		
(c)	Digital type Voltmeter (0-500 Volt)			'		Digital type Voltmeter (0-500 Volt)							
• •	with selector switch - 1 Set					with selector switch - 1 Set				-			
(d)	Digital type Ammeter (0-2500 Amp)			1 1		Digital type Ammeter (0-2000 Amp)		ļ		1			
ν-,	with selector switch and one set of 3					with selector switch and one set of 3							. 1
	Nos CTs of ratio 2500/5A Class !					Nos CTs of ratio 1600/5A Class I		ł					
	accuracy and 15 VA burden - 1 set					accuracy and 15 VA burden - 1 set							
				 		3 Nos Phase indication LED lamps							
(e)	3 Nos Phase indication LED lamps					with 2 Amp back up HRC fuse,					ļ		
	with 2 Amp back up HRC fuse,			1		breaker 'ON' indicating light with 2 A		1					
	breaker 'ON' indicating light with 2 A			1 1		MCB, test terminal block set, circuits							i l
	HRC fuse , test terminal block set,					as per standard practice, auxiliary				1			
	circuits as per standard practice,					contacts for positive interlocking of		1					
	auxiliary contacts for positive					the breakers as required.	l						
	interlocking of the breakers as					The Dicardis as required.					1	1	
	required. Shunt trip coil 220V A.C.			 		Shunt trip coil 220V A.C.		1					
(1)	Shunt trip coli 220 V A.C.			 					* * .				
В	BUS COUPLERS			T .		BUS COUPLERS							
	1 No. 1600 Amps horizontal four pole					1 No. 1600 Amps horizontal four pole							
	drawout type, air circuit breakers of			1 .		drawout type, air circuit breakers of		1			ì		
	fault breaking capacity 50 KA (Ics=					fault breaking capacity 50 KA (Ics=				1			
	icu upto 433 V) manually operated			1.		icu upto 433 V) manually operated		1				i	
	with interlocked door, autormatic					with interlocked door, autormatic						1	-
	safety shutters, mechanical ON/OFF			1	-	safety shutters, mechanical ON/OFF					ļ		1
	and service/ test/ isolated position					and service/ test/ isolated position							
	indicators and frame earthing					indicators and frame earthing	ıl		· ·	1.			
	contact, confirming to IS-13947-2-					contact, confirming to IS-13947-2-	·l	}				1	
	1993 as amended upto date				. •	1993 as amended upto date	:						
	complete with following accessories					complete with following accessories							
	for each ACB-					for each ACB-		1		1 .	· .	1	
							ļ				ļ		
(a)					:	Independent manual spring closing	ł	1					
	mechanisum - 1 No.					mechanisum - 1 No.	+			1	<u> </u>	 	
(D)	Breaker 'ON' indicating light with		1 1			Breaker 'ON' indicating light with		1		1		İ	
	back up 2A HRC fuse test terminal		[back up 2A MCB fuse test terminal			1		1		
	block,fuses, circuits as per standard					block,circuits as per standard							
	practice, auxiliary contact contactors					practice, auxiliary contact contactors					}		
	for positive electrical interlocking of					for positive electrical interlocking of	r I	1.	1 .	- [4	
	breakers, etc. as required - 1 Set					breakers, etc. as required - 1 Set		1	1		-		
C	BUS BARS			-		BUS BARS	 		<u> </u>	<u> </u>	 		
	TPN aluminium bus bars of minimum	-				4 strips aluminium bus bars of	-			+		-	
	of 2000 Amps capacity with heat	i .				minimum of 2000 Amps capacity							
	shrinkable coloured sleeves and					with heat shrinkable coloured					1		
	including DMC/ SMC bus bars					sleeves and including DMC/ SMC					1		
	supports at required intervals					bus bars supports at required							
	complete for cross section, size					intervals complete for cross section.							
	support & their spacing etc. for with					size support & their spacing etc. for							
	standing fault level of 31 MVA for 1					with standing fault level of 31 MVA							
	sec.					for 1 sec							
ס	OUTGOINGS					OUTGOINGS	· ·		-	1	 		

	Sub-Head of estimate and		Original est	imates		Sub-Head of estimate and			vised estimate			Difference	Reason
	Items of work	Qty.	Rate	Unit	Cost	Items of work (REVISED)	Qty		Rate	Unit	Cost		<u></u>
1(a)	2 Nos 800 Amp TPN MDO type ACB (Ics - 50 KA upto 433 V)SFU with HRC fuse (BC:80KA)					2 Nos 800 Amp TPN MDO type ACB (Ics - 50 KA upto 433 V)							
	CT's of ratio 800/5 Amps- set (1 set of 3 Nos)		·			CT's of ratio 800/5 Amps- 1 set (1) set of 3 Nos)							
	Digital type ammeter (0-800 Amp) with selector switch					Digital type ammeter (0-800 Amp) with selector switch - 2 set							,
	2 Nos 630 Amp TPN MDO type ACB (lcs-50 KA upto 433 V)/SFU with HRC fuse (BC:80KA)				. ,	3 Nos 630 Amp TPN MCCE (50 KA upto 433 V)							
ι-,	CT's of ratio 630/5 Amps - set (1 set of 3 Nos)					CT's of ratio 630/5 Amps - 2 set (1 set of 3 Nos)							
	Digital typ ammeter (0-630 Amp) with selector switch - 3 set					Digital type ammeter (0-650 Amp) with selector switch - 3 set							
- \- 7	3 Nos 315 Amp TPN MCCB (ics - 50 KA upto 433 V)/SFU with HRC fuse(BC:80KA)					3 Nos 315 Amp TPN MCCB (lcs 30 KA upto 433 V)				,		:	Due to increase in the load of
(p)	CT's of ratio 315/5 Amps - set (1 set of 3 Nos)					CT's of ratio 400/5 Amps -1 set (1 set of 3 Nos)							various buildings by
(c)	Digital type ammeter (0-315 Amp) with selector switch - 3 set					Digital type ammeter (0-400 Amp) with selector switch - 3 set							the Clien Deptt.
								ļ .					Capacity 8 rating of the
	2 Nos 100 Amp 4P MCCB (Ics - 50 KA upto 433 V)/SFU with HRC fuse(BC:80KA)					3 Nos 100 Amp TPN MCCB (lcs - 25 KA upto 433 V)							various switch gears installed in
	CT's of ratio 100/5 Amps - set (1 set of 3 Nos)					CT's cf ratio 100/5 Amps - 2 set (1 set of 3 Nos)							the LT panels
(c)	Digital typ∋ ammeter (0-100 Amp) with selector switch - 3 set					Digital type ammeter (0-100 Amp) with selector switch - 3 set							increase accordingly as per
	2 Nos 63 Amp TPN MCCB (Ics - 10 KA upto 433 V)/SFU with HRC fuse(BC:80KA)					2 Nos 63 Amp TPN MCCB (lcs - 10 KA upto 433 V)				· . · · · ;			as per actuals.
	CT's of ratio 63#5 Amps - set (1 set of 3 Nos)					CT's cf ratio 100/5 Amps - 2 set (1 set of 3 Nos)							
(c)	Digital type ammeter (0-100 Amp) with selector switch t	⁻ 1 job	801450.00	job	801450.00	Digital type ammeter (0-100 Amp) with selector switch - 2 set		job	1215000.00	job	1215000.00	413550.00	

	Sub-Head of estimate and			Original est	timates		Sub-Head of estimate and			vised estimat	<u>es</u>		Difference	Reaso
	Items of work	Qty.		Rate	Unit	Cost	Items of work (REVISED)	Qty		Rate	Unit	Cost		
2	Supplying, installation, testing &						Supplying, installation, testing &						,	
	commissioning of cubical type LT			1			commissioning of cubical type LT							1
	panel suitable for 415 V, 3 Phase, 4						panel suitable for 415 V, 3 Phase, 4						· ·	
	wire 50 Hz AC supply system having				i i		wire 50 Hz AC supply system having							
										i	1			
	front surface area 40 sq.mtr						front surface area 40 sq.mtr		:		. •			
	(Approx.) fabricated in						(Approx.) fabricated in				i	·		1
	compartmentalized (preferably)		1				compartmentalized (preferably)						· ·	Ì
	design from CRCA sheet steel of						design from CRCA sheet steel of			1	1			
	2mm thick for frame work and						2mm thick for frame work and			'	1			İ
	covers, 3mm thick for gland plates					,	covers, 3mm thick for gland plates				1	.] .		
	including cleaning & finishing		1				including cleaning & finishing							
	complete with 7 tank process for								ļ					1
							complete with 7 tank process for				٠.			
	power coaing in approved shade,				1		power coating in approved shace,			1				ĺ
	having 4000 Amp capacity extensible				1 1		having 4000 Amp capacity extensible			ŀ		l		İ
	type TPN Aluminium Alloy bus bars						type TPN Aluminium Alloy bus bars					1		
	of high conductivity DMC/ SMC bus			į			of high conductivity DMC/ SMC bus				1			
	bar supports, with short circuit						bar supports, with short circuit							ļ
	withstand capacity of 31 MVA for 1						withstand capacity of 31 MVA for 1							
	Sec. bottom base channel of MS									1				ļ
	section not less than 100mm x		1		1 '		Sec. bottom base channel of MS				· 1	Ì		
			1	ĺ			section not less than 100mm x					1		}
	50mm x 5rnm thick fabrication shall			i			50mm x 5mm thick fabrication shall							
	be done in transportable sections,				i 1		be done in transportable sections,			1	1.			
	entire panel shall have a common						entire panel shall have a common						ľ	
	copper earth bar of size 25mm x				1	-	copper earth bar of size 25mm x			1				ľ
	5mm at the rear with 2 Nos, earth						5mm at the rear with 2 Nos, earth			1	i			ļ
	stud, solid connections from main			i			offinial activities and will 2 Nos, earth			1	l. '			
	bus bar to switch gears with required		1				stud, solid connections from main							ĺ
							bus bar to switch gears with required			1				
	size of Ai. bus bars and control		İ				size of Al. bus bars and control							
	wiring with 1.5 sq.mm PVC insulated				l 1		wiring with 1.5 sq.mm PVC insulated							
	copper conductor S/C cable, cable						copper conductor S/C cable, cable			i .				Į
	alleys, cable gland plates initch				!		alleys, cable gland plates initch							
	gears:				1 1						1			· ·
	INCOMING						gears:				}			
<u>'</u>				·			INCOMING			, , ,				
	2 Nos 1600 Amps each four pole						2 Nos 2000 Amps each four pole							
	horizontal drawout type air circuit						horizontal drawout type air circuit							
	breaker of faurt breaking capacity 50						breaker of fault breaking capacity 50	- 1						
	KA (lcs=lc upto 433V) manually						KA (ics=icu upto 433V) manually	- 1				ł · !		
	operated, fixed with interlocked door						operated, fitted with interlocked door,	1		i i		}		
	automatic safety shutters.										ł	·		
	mechanical ON!OFF and service/	-		1			automatic safety shutters,	į		· .	1.	;		
	test/ isolated position indicators and			•	ľ		mechanical ON/OFF and service/					İ		
			1 1				test/ isolated position indicators and					·		
	frame earthing contact, confirming to						frame earthing contact, confirming to							
	IS-13947-2 1993 as amended up-to-						IS-13947-2 1993 as amended up-to-							
	date complete with following						date complete with following							
	accessories for each ACB.						accessories for each ACB							
	lada and the same						accessories for each ACB.							
(a)	Independent manual spring closing						Independent manual spring closing							
	mechanism - 1 No.					-	mechanism - 1 No.						į	
(b)	Microprocessor release (EMI & EMC						Microprocess release /FM: 2 5-10				1.			
	certified) for over current, earth fault						Microprocessor release (EMI & EMC							
	and short circuit protection - 1 Set						certified) for over current, earth fault							
	- 1 del						and short circuit protection - 1 Set							

	-Head of estimate and			0-1-11			Sub-Head of estimate and		5			T	Difference	Reason	7
	ns of work	Qty.		Original est Rate	Unit.	Cos	Items of work (REVISED)	Qty		vised estimat Rate	Unit	Cost	Dillerence	Reason	1
	tal type Valtmeter (0-500 Amp.)	QLy.		Kate	Ont.	COS	Digital type Voltraeter (0-500 Amp.)	Qty	-	Rate	UNISE	CUSE			-
with	selector switch & back up HRC	ŀ	i				with selector switch & back up FiRC	ĺ							
	s/MCBs - 1 Set	i	1				fuses/MCBs - 1 Set				·			Ì	1
	tal type Ammeter (0-2500 Amp)						Digital type Ammeter (0-2000 Amp)								1
	selector switch and one set of 3		i	:			with selector switch and one set of 3					ļ ·			į
	CTs of ratio 2500/5A Class I	.					Nos CTs of ratio 2500/5A Class 1		Ì	-				ĺ	İ
	uracy and 15 VA burden - 1 set	i					accuracy and 15 VA burden - 1 set							İ	İ
	tio to be filled up)	ĺ			1		(Ratio to be filled up)								İ
	os Phase indication LED lamps				 		3 Nos Phase indication LED lamps				 			 	-
	2 Amp back up HRC fuse,						with 2 Amp back up HRC fuse,								
	aker 'C'N' indicating light with 2 A						breaker 'ON' indicating light with 2 A								1
	C ruse, test terminal block set.						HRC fuse, test terminal block set,								
	es, circuits as per standard	1					fuses, circuits as per standard					,			-
	ctice, auxiliary contacts for	j					practice, auxiliary contacts for					,			1
	tive interlocking of the breakers	ĺ					positive interlocking of the breakers				1.				
	equired.	İ					as required.				i .				
	int trip coil 220V A.C.						Shunt trip ccil 220 / A.C.		 -		 			ļ	-
10110	TK dip Soil 220V A.C.			·	 		Shuff tip acii 2207 A.C.		ļ		<u> </u>			<u> </u>	-Ì
Bill	COUPLERS						BUS COUPLERS		 		 	ļ			
	o. 1600 Amps horizontal four pole						1 No. 2000 Amps horizontal four pole	·	 		ļ	ļ			1
	wout type, air circuit breakers of										1				1
	t breaking capacity 50 KA (lcs=	i					drawout type, air circuit breakers of fault breaking capacity 50 KA (lcs=					1			1
lcii	upto 433 Vi manually operated	1					lau uste 433 \6 acaty 50 KA (ICS=								
	interiocked door, automatic	J					lcu upto 433 V) manually operated with interlocked door, autormatic					}			1
	y shutters, mechanical ON/OFF		- 1		l i		safety shutters, mechanical ON/OFF				1				
	service/ test/ isolated position	İ			l i				1 1		į				
indi	cators and frame earthing	1					and service test isolated position				!			1	}
CON	eact confirming to IS-13947-2-						indicators and frame earthing								
199	as amended upto date	1					contact, confirming to IS-13947-2-					-		1	
	piete vith following accessories			·			1993 as amercied upto date								
	ach ACB-						complete with following accessories								
_(for each ACB-								
Inde	pendert manual spring closing	i					Independent manual spring closing								-
tinec	hanisum - 1 No.						mechanisum - 1 No.								
i i	No. ic N. indiana														1
Bre	aker CN' indicating light with						Breaker 'ON' indicating light with							 	_
Dac	up 24. HRC fuse test terminal						back up 2A HRC fuse test terminal								
DIOC	k, fuses, circuits as per standard						block, fuses, circuits as per standard		1						1
prac	tice, auxiliary contact contactors				i		practice, aux liary contact contacto's								!
1101	positive electrical interlocking of						for positive electrical interlocking of								1
brea	ikers, etc. as required - 1 Set						breakers, etc. as required - a Set		1						İ

	Sub-Head of estimate and		Original es	timates		Sub-Head of estimate and		Rev	sed estimate:	5		Difference	Reasor
	Items of work	Qty.	Rate	Unit	Cost	Items of work (REVISED)	Qty	·	Rate	Unit	Cost	,	
C	BUS BARS					BUS BARS		- 1			:	:	
<u> </u>	TPN aluminium bus bars of minimum					TPN aluminium bus bars of minimum							
	of 2000 Amps capacity with heat					of 2500 Amps capacity with heat	- 1	- 1			1		
	shrinkable coloured sleeves and	- 1	1			shrinkable coloured sleeves and	- [1	1				
	including DMC/ SMC bus bars	1				including DMC/ SMC bus bars		i	1			·	
	supports at required intervals	1		1 . 1		supports at required intervals							
	complete for cross section, size		1			complete for cross section, size	}		i				
	support & their spacing etc. for with					support & their spacing etc. for with							
	standing fault level of 31 MVA for 1		1			standing fault level of 31 MVA for 1							
	Sec.		ļ			Sec.	i				' '		
				 		OUTGOINGS							
	OUTGONGS												
1(a)	4 Nos 800 Amp TPN MDO type ACB	ı				2 Nos 800 Amp TPN MDO type ACB	1		1				
	(Ics - 50 KA upto 433 V)/ SFU with	i				(Ics - 50 KA upto 433 V)/ SFU with					i i		
	HRC fuse (BC:80 KA)					HRC fuse (BC:80 KA)							
(b)	CT's of ratio 800/5 Amps- set (1 set					CT's of ratio 800/5 Amps- set (1 set							
	of 3 Nos)	1		1		of 3 Nos)				•			
(c)	Digital type ammeter (0-800 Amp)					Digital type ammeter (0-800 Amp)							
	with selector switch	i		i		with selector switch			1	,			
2(a)	2 Nos 63:) Amp TPN MDO type ACB					4 Nos 630 Amp TPN MDO type ACB							Due
	(ics - 50 KA upto 433 V)/ SFU with	ł				(lcs - 50 KA upto 433 V)/ SFU with			1				increase
	HRC fuse (BC:80 KA)	1				HRC fuse (BC:80 KA)		- 1	- 1		. !		the load
(b)	CT's of ratio 630/5 Amps - set (1 set					CT's of ratio 630/5 Amps - set (1 set							various
(-)	of 3 Nos)	l	İ			of 3 Nos)					1 1		buildings
(c)	Digital type ammeter (0-630 Amp)			-		Digital type ammeter (0-630 Amp)							the Cli
(0)	with selector switch		1			with selector switch		1	· · · · ·				Deptt.
3(a)	1 No. 40C Amp TPN MCCB (Ics - 50			 	-	1 No. 400 Amp TPN MCCB (Ics - 50)							Capacity
رد,	KA upto 433 V)/ SFU with HRC fuse	Ì				KA upto 433 V/ SFU with HRC fuse	.	İ					
	(BC:80 KA)	1		İ		(BC:80 KA)	- 1	1			.		rating o
(h)	CT's of ratio 400/5 Amps - set (1 set			 		CT's of ratio 400/5 Amps - set (1 set							various
(0)	of 3 Nos)		1			of 3 Nos)		ĺ	. [1		switch ge
(C.)	Digital type ammeter (0-400 Amp)			-	ļ								installed
(0)	with selector switch					Digital type ammeter (0-400 Amp)		-				,	the
4/->		i_		 		with selector switch							panels
4(a)	3 No. 315 Amp TPN MCCB (Ics:- 50	1	1			1 No. 160 Amp 4 P MCCB (Ics - 50)	1	- 1					increase
	KA upto 433 VV SFU with HRC fuse	1	-	1		KA upto 433 V)/ SFU with HRC fuse	- 1	í] -		according
	(BC:50 KA)			L	<u> </u>	(BC:80 KA)		_ ·					as
(b)	CT's of rario 315/5 Amps - set (1 set		1			CT's of ratio 160/5 Amps - set (1 set							actuals
	of 3 Nos)					of 3 Nos)	1	ļ			i. i	•	
(c)	Digital type ammeter (0-315 Amp)					Digital type ammeter (0-160 Amp)					ļt		
	with selector switch			İ		with selector switch	. 1	1	^				
				T							 		
5(a)	1 Nos 160 Amp TP 4 Nos MCCB (Ics			1		2 Nos 100 Amp TP 4 Nos MCC3 -	+						
	- 50 KA upto 433V)/SFU with HRC					35 KA upto 433V		Ī	İ				
	fuse (BC 80KA)						į	1					
(O)	CTs of ratio 160/5 Amps - set (1 set					CT's of ratio 100/5 Amps - 2 set (1	+						
. ,	of 3 Nos)	ì				set of 3 Nos)					1		
(c)	Digital type ammeter (0-160 Amp)			 									
,- /	with selector switch	1 job	921101.00	iob	021101 00	Digital type ammeter (0-100 Amp)							
* -·· •		1 1100	921101.00	נטן	921101.00	with selector switch - 2 set	1 li	ob i	1400000.00 i	doi	1400000.00	478899.00	

	Sub-Head of estimate and		Original es	timates		Sub-Head of estimate and		Revised estimate			Difference	Reason
_	Items of work	Qty.	Rate	Unit	Cost	Items of work (REVISED)	Qty	Rate	Unit	Cost		
С	BUS BARS			7		BUS BARS		,		1.		
	TPN aluminium bus bars of minimum			1		TPN aluminium bus bars of minimum		T .				
	of 2000 Amps capacity with heat	I				of 2500 Amps capacity with heat	ŀ	1		1 1		İ
	shrinkable coloured sleeves and	i				shrinkable coloured sleeves and	1	!				
	including DMC/ SMC bus bars			i		including DMC/ SMC bus bars	ł					
	supports at required intervals	1	ļ			supports at required intervals					,	
	complete for cross section, size		1	1		complete for cross section, size	1	1		1		
	support & their spacing etc. for with	1		1		support & their spacing etc. for with						1
	standing fault evel of 31 MVA for 1	İ	1	ļ		standing fault level of 31 MVA for 1	!	1				1
	Sec.			<u> </u>		Sec.				l		
	OUTGOINGS					OUTGOINGS						
(a)	4 Nos 800 Amp TPN MDO type ACB			1		2 Nos 800 Amp TPN MDO type ACB						
	(lcs - 50 KA upto 433 V)/ SFU with	!	1			(ics - 50 KA upto 433 V)/ SFU with	İ	1		i		1
	HRC fuse: (BC:80 KA)	!	i	1		HRC fuse (BC:80 KA)	į			1		
(b)	CT's of ratio 800/5 Amps- set (1 set		 	+		CT's of ratio 800/5 Amps- set (1 set				 		ļ
נט		1	İ	- i			.	-				1
	of 3 Nos)					of 3 Nos)						
C)	Digital type ammeter (0-800 Amp)	İ				Digital type ammeter (0-800 Amp)	ļ			1		i
	with selector switch					with selector switch		_ i		1		
(a)	2 Nos 63) Amp TPN MDO type ACB					4 Nos 630 Amp TPN MDO type ACB						Due
	(ics - 50 KA upto 433 V)/ SFU with	ł				(lcs - 50 KA upto 433 VV SFU with	1	1				increase
	HRC fuse (BC:80 KA)	1				HRC fuse (BC:80 KA)	- 1			1 1		the load
b)	CTs of ratio 630/5 Amps - set (1 set			1		CT's of ratio 630/5 Amps - set (1 set				1		various
-,	of 3 Nos)	1	i			of 3 Nos)	1	1 .		1		
<u>ر ۲</u>	Digital type ammeter (0-630 Amp)		+	+-+		Digital type ammeter (0-630 Amp)						buildings
٠,	with selector switch	1	-	1 1			.			1 1		the Clie
(a)	1 No. 400 Amp TPN MCCB (Ics - 50)					with selector switch						Deptt.
(4)		1				1 No. 400 Amp TPN MCCB (Ics - 50)				i		Capacity
	KA upto 433 V/ SFU with HRC fuse	İ	ļ	1 1		KA upto 433 V)/ SFU with HRC fuse				1		rating of t
	(BC:80 KA)					(BC:80 KA)	!			1 .		various
(b)	CTs of ratio 400/5 Amps - set (1 set	i				CT's of ratio 400/5 Amps - set (1 set						switch gea
	of 3 Nos)		_			of 3 Nos)	1			1 1		installed
C)	Digital type ammeter (0-400 Amp)					Digital type ammeter (0-400 Amp)				+		the
	with selector switch	1				with selector switch	1	1		1		
(a)	3 No. 315 Amp TPN MCCB (ics:- 50			 		1 No. 160 Amp 4 P MCCB (Ics - 50)					······	panels
• •	KA upto 433 VV SFU with HRC fuse	- 1	į	1		KA upto 433 V)/ SFU with HRC fuse	l.			j		increase
	(BC:80 KA)	İ		1 1			- [İ		1		accordingly
h)	CT's of ratio 315/5 Amps - set (1 set		+	 		(BC:80 KA)		·				as p
υj		į.		1 . 1		CT's of ratio 100/5 Amps - set (1 set						actuals
	of 3 Nos)					of 3 Nos)	!			1. 1		
C)	Digital type ammeter (0-315 Amp)	1				Digital type ammeter (0-160 Amp)				 		i
	with selector switch		1	1 1	•	with selector switch		1		1		1
				1						+		-
(a)	1 Nos 160 Amp TP 4 Nos MCCB (Ics			 		2 Nos 100 Amp TP 4 Nos MCC3 -				ļ		
*	- 50 KA upto 433V)/SFU with HRC			1		35 KA upto 433V	ĺ					
	fuse (BC:80KA)					33 TOT UPIO 433V						
	CTs of ratio 160/5 Amps - set (1 set											
	of 3 Nos)		1	!		CT's of ratio 100/5 Amps - 2 set (1						
	Digital type ammeter (0-160 Amp)					set of 3 Nos)						
,	with polosics audich					Digital type ammeter (0-100 Anip)				t		
	with selector switch	1 Jjob	\$21101.00	י כסו	921101.00	with selector switch - 2 set	1 job	1400000.00	job	1400000.00	478899.00	i

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Sub-Head of estimate and		Original est			Sub-Head of estimate and			visec estimat		ļ	Difference	Reas
tems of work	Qty.	Rate	Unit	Cost	Items of work (REVISED)	Qty		Rate	Unit	Cost		
Supplying, installation, testing &					Supplying, installation, testing &	-						i
commissioning of cubical type LT			i i		commissioning of cubical type LT			İ	ľ	ŀ		
	ĺ				panel suitable for 415 V, 3 Phase. 4							
panei suitable for 415 V, 3 Phase, 4								i	ļ			1
wire 50 Hz AC supply system of	!		1		wire 50 Hz AC supply system of				1			
suitable size fabricated in			1		suitable size fabricated in			1				
compartmentalized (preferably)		İ			compartmentalized (preferably)			1				
design from CRCA sheet steel of	1	ì	}		design from CRCA sheet steel of				1			!
2mm thick for frame work and	1	į	1		2mm thick for frame work and		Į					
covers, 3rrim thick for gland plates			1		covers, 3mm thick for gland plates			i	ļ	1		
including cleaning & finishing	1				including cleaning & finishing						. '	
	ı	İ	[[complete with 7 tank process for			1				İ
complete with 7 tank process for	İ						1		}			
power coating in approved shade,			1 1		power coating in approved shade,		l		1 .	1		1
having 4000 Amp capacity extensible		i	1 1		having 4000 Amp capacity extensible		ŀ			1		1
type TPN Aluminium Alloy bus bars	1		1		type TPN Aluminium Alloy bus bars			f				1
of high conductivity DMC/ SMC bus			!		of high conductivity DMC/ SMC bus	ř	1			l		}
bar supports, with short circuit		1			bar supports, with short circuit				1			
withstand capacity of 31 MVA for 1			1 1		withstand capacity of 31 MVA for 1		l]		·	Į
Sec. bottom base channel of MS	i		1 1	•	Sec. bottom base channel of MS		1					
section not less than 100mm x	1	İ			section not less than 100mm x		1	1	1			
50mm x 5, nm thick fabrication shall			1		50mm x 5mm thick fabrication shall		i	ĺ	1			i
	!	1	l i				1	1				
be done in transportable sections,	į	1	1 1		be done in transportable sections,			,	1 .	1		1
entire panel shall have a common			!!!		entire panel shall have a common				1			-
cooper eath bar of size 25mm x		}			copper earth par of size 25mm. x		1	1	Ì			
5mm at the rear with 2 Nos, earth		1	1		5mm at the rear with 2 Nos, earth							ı
stud, solid connections from main			1 1		stud, solid connections from main				1		-	i
bus bar to switch gears with required	-		1 1		bus bar to switch gears with required		l	1	ì	i		İ
size of Al. bus bars and control	- 1		1 1		size of Al. bus bars and control		l	1.	1			1
wiring with 1.5 sq.mm PVC insulated	!		1 1		wiring with 1.5 sq.mm PVC insulated		ł					1
copper conductor S/C cable, cable	į			•			}	!	1			i
	!				copper conductor S/C cable, cable		1		1	1		1
alleys, cable gland plates in two half	- 1		!		alleys, cable gland plates in two half		1	1				}
including providing tch gears:					including providing itch gears:		İ		1			1
Note. The dr			i 1		Note: The dr				1	1		1
INCOMING		-	1		INCOMING		 	 	 		·	1
2 Nos 2000 Amps each four pole.					2 Nos 2500 Amps each four pole		 	 	 	 		
horizontal drawout type air circuit		1	1 1		horizontal drawout type air circuit		ì				·	i
breaker of fault breaking capacity 50		ĺ	1 1				i	1		!		1
KA (lcs=lcu upto 433V) manually					breaker of fault breaking capacity 50				İ			İ
			i l		KA (los=lou upto 433V) manually		1					1
operated, fitted with interlocked door,					operated, fitted with interlocked door,		1	}	1.			1
automatic safety shutters,		. 1	!		automatic safety shutters,			1	1			1
mechanica ON/OFF and service/			!!!		mechanical ON/OFF and service/				1			
test/ isolated position indicators and					test/ isolated position indicators and			1.	1			1
frame earthing contact, confirming to					frame earthing contact, confirming to		!			·		
IS-13947-2 1993 as amended up-to-					IS-13947-2 1993 as amended up-to-			1				
date complete with following			!		doto complete with fellow			1		1		
accessories for each ACB.					date complete with following							
, , , , , , , , , , , , , , , , , , ,	ł				accessories for each ACB.							į
Incorporate American								1				i
Independent manual spring closing			1		Independent manual spring closing		1					
mechanism - 1 No.					mechanism - 1 No.							!
Microprocessor release (EMI & EMC		T	1		Microprocessor release (EMI & EMC		 					
certified) for over current, earth fault			1		certified) for over current, earth fault							
and short circuit protection - 1 Set	1		1		contined to over corrent, earth fault					1		1
, 501	i	!			and short circuit protection - 1 Set		1	1	4			I

-	Sub-Head of estimate and			Original es	timates		Sub-Head of estimate and		Revis	ed estimate			Difference	Reason
_	Items of work	Qty.	T	Rate	Unit		Items of work (REVISED)	Qty		Rate	Unit	Cost		
c).	Digital type Voltmeter (0-500 Amp.) with selector switch & back up HRC fuses/MCBs - 1 Set	4.7.					Digital type Voltmeter (0-500 Amp.) with selector switch & back up HRC fuses/MCBs - 1 Set							
(d)	Digital type Ammeter (0-2500 Amp) with selector switch and one set of 3 Nos CTs of ratio 2500/5A Class I accuracy and 15 VA burden - 1 set (Ratio to be filled up)						Digital type Ammeter (0-2500 Amp) with selector switch and one set of 3 Nos CTs of ratio 2500/5A Class I accuracy and 15 VA burden - 1 set (Ratio to be filled up)							
(e)	3 Nos Phase indication LED iamps with 2 Anip back up HRC fuse, breaker 'ON' indicating light with 2 A HRC fuse, test terminal block set, fuses, circuits as per standard practice, auxiliary contacts for positive interlocking of the breakers as required.						3 Nos Phase indication LED lamps with 2 Amp back up HRC fuse, breaker 'ON' indicating light with 2 A HRC fuse, test terminal block set, fuses, circuits as per standard practice, auxiliary contacts for positive interlocking of the breakers as required.							
(f)	Shunt trip coil 220V A.C.						Shunt trip coil 220V A.C.							
(1)	Gridit dip con 225 v v.c.				1									
В	BUS COUPLERS		T				BUS COUPLERS							
	1 No. 2000 Amps horizontal four pole drawout type, air circuit breakers of fault breaking capacity 50 KA (Ics=Icu upto 433 V) manually operated with interlocked door, autormatic safety shutters, mechanical ON/OFF and service/ test/ isolated position indicators and frame earthing contact, confirming to IS-13947-2-1993 as amended upto date complete vith following accessories for each ACB-					•	1 No. 2500 Amps horizontal four pole drawout type, air circuit breakers of fault breaking capacity 50 KA (Ics=Icu upio 433 V) manually operated with interlocked door, autormatic safety shutters, rnechanical ON/OFF and service/ test/ isolated position indicators and frame earthing contact, confirming to IS-13947-2-1993 as amended upto date complete with following accessories for each ACB-				-			
(a)	Independent manual spring closing						Independent manual spring closing mechanisum - 1 No.	in grander t						
(b)	Breaker 'CN' indicating light with back up 2. HRC fuse test terminal block, fuses, circuits as per standard practice, at xiliary contact contactors for positive electrical interlocking of breakers, e.c. as required -1 Set						Breaker 'ON' indicating light with back up 2A HRC fuse test terminal block, fuses, circuits as per standard practice, auxiliary contact contactors for positive electrical interlocking of breakers, etc. as required - 1 Set							

Sub-Head of estimate and		Original est		Sub-Head of estimate and		Revised estima			Difference	Reason
items of work	Qty.	Rate	Unit	Cost Items of work (REVISED)	Qty	Rate	Unit	Cost		
BUS BARS				BUS BARS						
TPN aluminium bus bars of minimum				TPN aluminium bus bars of minimum						
of 2500 Amps capacity with heat	İ	l i	!	of 2500 Amps capacity with neat						
shrinkable coloured sleeves and			1	shrinkable coloured sleeves and		1				1
including DMC/ SMC bus bars	1		1	including DMC/ SMC bus pars	ł					İ
	-						1			
supports at required intervals	1			supports at required intervals	Į	i	1			
complete for cross section, size				complete for cross section, size	- 1		1	!		
support & their spacing etc. for with				support & their spacing etc. for with		1	ļ			İ
standing fault level of 31 MVA for 1			ł	standing fault level of 31 MVA for 1	}	1	1	i 1		
Sec.			1	Sec.	1		1			1
							 			·
OUTGOINGS				QUTGOINGS			 			
100.00							·			ļ
1(a) 1 No. 1250 Amp TPN MDO type			· j	1 No. 1250 Amp TPN MDO type	:		i .	1		ł
ACB (lcs - 50 KA upto 433 V)/SFU	1		Ì	ACB (Ics - 65 KA upto 433 V)/SFU			1	l :		}
with HRC fuse(BC:80KA)			1 .	with HRC fuse(BC:80KA)			-	1.		-
(b) CT's of ratio 1250/5 Amps- set (1				CT's of ratio 1250/5 Amps- set (1						
set of 3 Nos)				set of 3 Nos)			-			
(c) Digital type ammeter (0-1250 Amp)				Digital type ammeter (0-1250 Amp)						ļ
with selector switch	ļ									
IVVIIII SEJECIDI SWILCIT				with selector switch			1			
2(a) 2 Nos 1000 Amp TPN MDO type	1		1	2 Nos 1000 Amp TPN MDO type						
ACB (ics - 50 KA upto 433 V)/SFU	!	.		ACB (Ics - 50 KA upto 433 V)/SFU	.i			1 1		1
with HRC ruse (BC:80KA)	i			with HRC fuse (BC:80KA)	.	1	1 .			
(b) CT's of ratio 1000/5 Amps - set (1)				CT's of ratio 1000/5 Amps - set (1			 	 		
set of 3 Nos)	- 1		- 1	set of 3 Nos)	1		1	1		
(c) Digital type ummeter (0-1000 Amp)										<u> </u>
			.1	Digital type ammeter (0-1000 Amp)	! !		1.			
with selector switch				with selector switch	ĺ		1	l i		
1			i				1			
3(a) 1 No 630 Amp TPN MDO type	- [1 No 630 Amp TPN MCCB(lcs - 50			·			-
ACB(Ics - 50 KA upto 433 V)/SFU	1		Ì	KA upto 433 VI/SFU with KRC	- 1		1 .	i		1
with HRC fuse(BC:80KA)			1	fuse(BC:80KA)	1		1.			
(b) CTs of ratio 630/5 Amps - set (1 set				C rs of ratio 630/5 Amps - set (1 set			 			
of 3 Nos)	1				1		1	1		
				of 3 Nos)						
, 1-2 (- coc , mile)	İ		:	Digital type animeter (0-630 Arnp)					•	Due 1
with selector switch				with selector switch - 1 set	{					increase
			!				 -			
4(a) 1 Nos 400 Amp TPN MDO type	1			1 Nos 400 Amp TPN MCCB(lcs - 35						ioad (
ACB(ics - 50 KA upto 433 V)/SFU	İ						i		-	various
with HRC fuse(BC:80KA)	i		į	KA upto 433 V)	Ì					buildings b
(b) CTs of ratio 400/5 Amps - set (1 set							1			the clier
			1	CT's of ratio 400/5 Amps - set (1 set						Deptt.
of 3 Nos)			İ	of 3 Nos)			1			Capacity
c) Digital type arrimeter (0-400 Amp)	1			Digital type ammeter (0-400 An:p)			 			
with selector switch				with selector switch						rating of th
				TAIT COLOCUE STRICT						various
(a) 1 No 250 Amp TPN MCCB (lcs - 50		· .		1 No 250 Am - TOU MOOD #						switch gear
KA upto 433 V)/SFU with HRC				1 No. 250 Amp TPN MCCB (Ics - 50						installed i
fuse(BC:80:KA)	ì			KA upto 433 V)	1		1			the L
C'Co of mile ocore										panels
C'l's of ratio 250/5 Amps - set (1 set				C s of ratio 250/5 Amps - set (1 set			 			
of 3 Nos)				of 3 Nos)						increase
c) Digital type ammeter (0-250 Amp)	1	1		Digital type ammeter (0-250 Amp)						accordingly
with selector switch	i		i	with colorter author			()			as pa
				with selector switch			1 1			actuals.
		11	!	1			T			

		000	O 10	\odot	00	\circ		\circ		\circ	\bigcirc	\circ
	And the second second	and the same of the same	THE PERSON NAMED IN		-	and the state of t	Service Courses			The Property of the Parket		

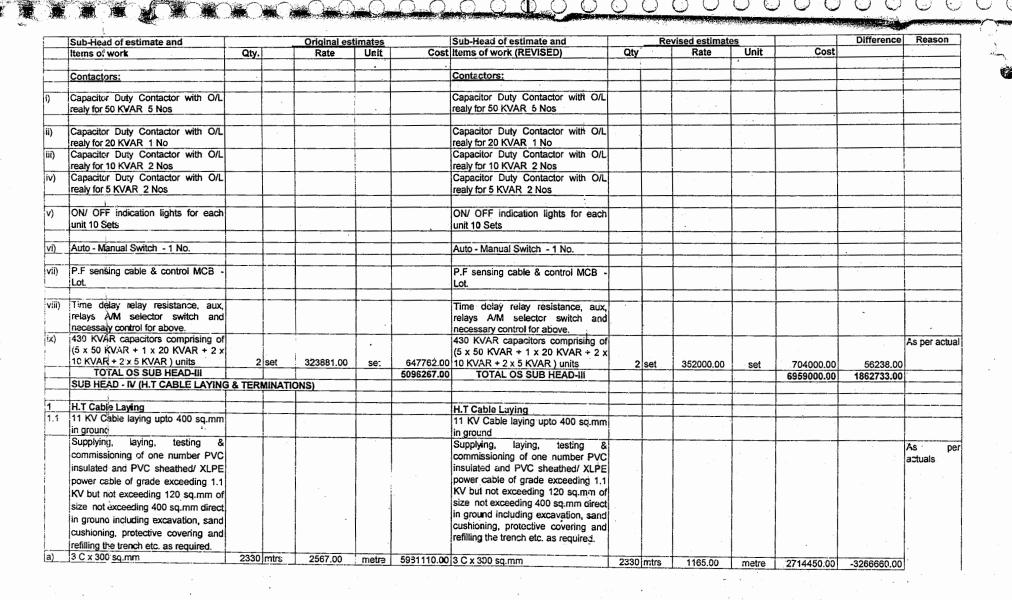
	Sub-Head of estimate and			Original esti			Sub-Head of estimate and			vised estimate		<u> </u>	Difference	Reason
	Items of work	Qty.		Rate	Unit-		items of work (REVISED)	Qíy		Rate	Unit	Cost		
(a)	2 No 200 Amp TPN MCCB (Ics - 50						2 No 200 Amp TPN MCCB (ics - 50)					1		
, .	KA upto 433 V)/SFU with HRC fuse	ŀ		1			KA upto 433 V)/SFU with HRC fuse		į ·	!		.		
	(BC:80KA)		1	i			(BC:80KA)					1		
(b)	CT's of ratio 200/5 Amps - set (1 set						CT's of ratio 200/5 Amps - set (1 set							
,	of 3 Nos)	- 1	-	1			of 3 Nos)			. 1	*.			
(c)	Digital type ammeter (0-200 Amp)						Digital type ammeter (0-200 Amp)							
()	with selector switch	1	1				with selector switch - 2 sets		l			1 1		
~							Wal delegate childs: 2 deleg					-		
7(a)	1 Nos 20 Amp TPN MCB (lcs - 50		+				1 Nos 20 Amp TPN MCB (ics - 50					 		
. (-/	KA upto 433 V)/SFU with HRC	1		i			KA upto 433 V)					1		
	fuse(BC:80KA)	1					Tot upto 455 V)							
(b)	CT's of ratio 20/5 Amps - 5 sets (1)						CT's of ratio 100/5 Amps - 5 sets (1)					 		-
(~)	set of 3 Nos)	- 1					set of 3 Nos)		!	l		1 . 1		
(c)	Digital type ammeter (0-20 Amp) with						Digital type ammeter (0-100 Amp)							
(Ο,	selector switch	1					with selector switch - 2 sets		i .			1		
	John Children						Will Selector Switch - 2 Sets							
8(a)	 						4 Nos 63 Amp TPN MCCB (lcs - 10			· · · · · ·	<u>:</u>			
· ()		1					KA upto 433 V)		ĺ					
(b)									<u> </u>					
(0)			1				CT's of ratio 63/5 Amps - 2 sets (1 set of 3 Nos)		1					
(c)		+							<u> </u>					
(0)		4 1	icb	1008734.00	:	. 4000204.00	Digital type ammeter (0-63 Amp) with							
4	(CAPACITOR PANEL)	- - ' 	1	1008734.00	job	1005/34.00	selector switch - 4 sets	1	ioo	1823000.00	job	1823000.00	814266.00	
z a)	Capacitor Panel - 430 KVAR						(CAPACITOR PANEL)							
<u>~</u> _	Outputito I aller - 430 KVAIX						Capacitor Panel - 430 KVAR		<u> </u>	ļ				
—· ·	Automatic Capacitor Control Panel													
	with 400 KVAR capacitors	1	į	1			Automatic Capacitor Control Panel		!				-	
		1	- 1	l			with 430 KVAR capacitors			ĺ				
	comprising of (7 x 50 KVAR + 2 x 20	1		1			comprising of (7 x 50 KVAR + 2 x 20							
	KVAR + 3 x 10 KVAR + 2 x 5 KVAR)	1	1	İ			KVAR + 3 x 10 KVAR + 2 x 5 KVAR)		Ì					
	unit in a pank formation to achieve	- 1		1	1		unit in a bank formation to achieve			[
	Automatic operation. The Panel shall		İ	i	!		Automatic operation. The Panel snall							
	be fabricated out of 2mm thick sheet	į	į	!			be fabricated out of 2mm thick sheet					1 1		
	steel, dust & vermin proof and	į					steel, dust & vermin proof and							
	channel iron frame work of cubicle	1	İ	1			channel iron frame work of cubicle					1		
	construction suitable to with stand a	1	1		1		construction relative to with stand at							
	fault level of 35 MVA at 415 volts, 3			I i			foult level of SE MAIN -> 445						į	
	phase, 50 HZ AC supply including		1	į			fault level of 35 MVA at 415 volts, 3					1.		
	interconnection, winng, painting,		1				phase, 50 HZ AC supply including							
	earthing, labeling and providing		.	1			interconneciton, wiring, painting.					1		
					1		earthing, labeling and providing							
	danger plates etc. as per		-	İ			danger plates etc. as per							
	specificastions.						specificastions.							
<u> </u> _	1000 A TP ACB (35 KA) - 1 No.					:	800 A.TP ACB (35 KA) - 1 No.							
												 		
i)	1600 A TPN Aluminium bus bars - 1			1			1000 A TPN Aluminium bus bars - 1					 		
	Set	. 1	ļ				Set		.]			.j.		

18	Sub-Head of estimate and		Original e	stimates		Sub-Head of estimate and		evised estima		i	Difference	Reason
1	tems of work	Qty.	Rate	Unit	Cost	Items of work (REVISED)	Qty	Rate	Unit	Cost		
								1	j .			
1	Digital Voltmeter 0 - 500 V with 4					Digital Voltmeter 0 - 500 V with 4						
	position selector switch - 1 Set					position selector switch - 1 Set						
	Digital Ammeter 0 - 1000 A with 4			 - - - - - - - - 		Digital Ammeter 0 - 1000 A with 4			1			
	position selector switch & suitable	- 1		1 1		position selector switch & suitable			1 1			
	size of CTs -1	•				size of CTs -1		1	1 1			
		 -				One set of (3 Nos) LED type RYB			+			
	One set of (3 Nos) LED type RYB		ì			One set of (3 Nos) LED type RTB		ĺ	1			
	phase indicating lamps with 2 A SP	1		1		phase indicating lamps with 2 A SP						
	VICBs for protection.					MCBs for protection.						
	Power factor meter with Automatic	1				Power factor meter with Automatic		1		1		
į	P.F.C.R & CT for unbalanced load -			1 1		P.F.C.R & CT for unbalanced load -		1			İ	
ŀ	1 Set		1	1		1 Set		1		1.		
т-т												
- 1	Control MCCBs:					Control MCCBs:		1				
				 					 			
	7 Nos 100 Amp TP MCCB					7 Nos 125 Amp TP MCCB		 	++			
	1100 TOO THIS IT INCOD					7 1403 120 Amp II wood		 	 			
	ON/OFF push buttons (2 Nos ON &					01/055						
		1	1			ON/OFF push buttons (2 Nos ON &		1	1 1	1		
-4	2 Nos OFF					2 Nos OFF)						
										i		
	2 Nos 40 Amp TP MCCB - 10 KA			}		2 Nos 63 Amp TP MCCB - 10 KA						
!					.,,,							
1	ON/OFF push buttons (2 Nos ON &					ON/OFF push buttons (2 Nos ON &		T	 			
	2 Nos OFF	·		i i		2 Nos OFF)			1. 1	İ		
							+	 				
i	3 Nos 32 Amp TP MCCB					3 Nos 32 Amp TP MCCB - 10 KA		+				
	- 1.6V 02 / E.I.P 1.1 II.OOD					3 NOS 32 Amp TP NACCS - TO KA		 	-			
1	ON/OFF push buttons (3 Nos ON &					01/055			+			
	3 Nos OFF	.				ON/OFF push buttons (3 Nos ON &			1			
 '	3 1408 (3)-17					3 Nos OFF)						
	70.100											
)[2 Nos 16 Amp TP MCB					2 Nos 16 Amp TP MCB				1		
<u>i</u>						•						
i) [ON'OFF push buttons (2 Nos ON &					ON/OFF push buttons (2 Nos ON &		1	1			
13	Nos OFF,	ļ		1 1		2 Nos OFF) alongwith each MCB	ļ	1		į		
												
1	Contactors:					Contactors:		 		i		
				 		Contactors:			<u> </u>			
i	Capacitor Duly Contactor with O/L		· - 									
	ealy for 50 KVAR 7 Nos					Capacitor Duty Contactor with G/L						
+	early to 50 KVAR / NOS					realy for 50 KVAR 7 Nos	i	4	1.	}		
1	Capacitor Duty Contactor with O/L	- 1				Capacitor Duty Contactor with O/L						
	ealy for 20 KVAR 3 Nos					realy for 20 KVAR 3 Nos		1 .	1. 1	1		
	Capacitor Duty Contactor with O/L					Capacitor Duty Contactor with O/L			1			
į,	ealy for 10 KVAR 3 Nos					realy for 10 KVAR 3 Nos				į		
) (Capacitor Duty Contactor with O/L			1		Capacitor Duty Contactor with O'L			 			
15	ealy for 5 kVAR 2 Nos					realy for 5 KVAR 2 Nos						
) (ON/ OFF indication lights for each		·			ON OFF Indication liable 6						
´	unit 14 Sets			1		ON/ OFF indication lights for each						
				- -		unit 14 Sets			1		.]	
)	Nuto Manual Suritate 4 11								1			
	Auto - Manual Switch - 1 No.					Auto - Manual Switch - 1 No.			 			

	Cub Hand of actionate and			Original est	imatae		Sub-Head of estimate and		Re	vised estimate	s		Difference	Reason
	Sub-Head of estimate and Items of work	Qty.		Rate	Unit		Items of work (REVISED)	Qty		Rate	Unit	Cost		
	items of work	Qty.		Rate	Uiiit	- 0031	icellia of Work (vias rozz)							
ix)	P.F sensing cable & control MCB -		<u> </u>				P.F sensing cable & control MCB -							
	Lot.	-												
X)	Time delay relay resistance, aux,						Time delay relay resistance, aux,							
	relays A/M selector switch and						relays AM selector switch and		1	1				
	necessary control for above.						necessary control for above.			i				
xi)	430 KVAR capacitors comprising of	~					430 KVAR capacitors comprising of							
	(7 x 50 KVAR + 2 x 20 KVAR + 3 x		1		}		(7 x 50 KVAR + 2 x 20 KVAR + 3 x			400500.00		207000 00	E3464 00	As per actua
	10 KVAR + 2 x 5 KVAR) units	2	sets	456768.00	set	913536.00	10 KVAR + 2 x 5 KVAR) units	2	sets	483500.00	set	967000.00	53464.00	As per actua
b)	Capacitor Panel - 380 KVAR				ļ		Capacitor Panel - 380 KVAR							
			ļ		-		Automatic Capacitor Control Panel		-	 				
	Automatic Capacitor Control Panel		ļ	İ			with 330 KVAR capacitors	٠.		1				
	with 380 KVAR capacitors				İ	1	comprising of (6 x 50 KVAR + 2 x 20		i		,			
ļ	comprising of (6 x 50 KVAR + 2 x 20 KVAR + 3 x 10 KVAR + 2 x 5 KVAR)				1		KVAR + 3 x 10 KVAR + 2 x 5 KVAR)		1	1				
:	unit in a bank formation to achieve						unit in a bank formation to achieve					1		
ĺ	Automatic operation. The Panel shall				İ	i .	Automatic operation. The Panel shall		-		!			
	be fabricated out of 2mm thick sheet						be fabricated out of 2mm thick sheet			į				
	isteel, dust & vermin proof and		ł			1	steel, dust & vermin proof and		i			i		
	channel irch frame work of cubicle		}		1	1	channel iron frame work of cubicle		1	į .				ĺ
	construction suitable to with stand a		ì			1	construction suitable to with stand a							
	fault level of 35 MVA at 415 volts, 3						fault level of 35 MVA at 415 volts, 3	1		İ		1		1
	phase, 50 HZ AC supply including		İ		1	1	phase, 50 HZ AC supply including					. 1		
	interconnection, wining, painting,			i	-		interconneciton, wiring, painting,		ļ					
	earthing, abeling and providing		1			ļ	earthing, labeling and providing	:	1			l i		
ļ	danger plates etc. as per		1			-	danger plates etc. as per	1	1	}	1			ĺ
	specificastions.					İ	specificastions.	1	-					
	op-contact states.			ł	1			1.		1.		İ		
1)	800 A TP ACB (35 KA) - 1 No.			1	1	T	630 A TP ACB (35 KA) - 1 No.	i	+					
,	7 · · ·				1									
11)	1000 A TPN Aluminium bus bars - 1						1000 A TPN Aluminium bus bars - 1		1					
	No.			L			No.	į		.i				
L														
iii)	Digital Voltmeter 0 - 500 V with 4						Digital Voltmeter 0 - 500 V with 4						•	
-	position selector switch - 1 Set		<u> </u>				position selector switch - 1 Set	1						
liv)	Digital Amineter 0 - 800 A with 4						Digital Ammeter 0 - 800 A with 4		1					
	position selector switch & suitable		į				position selector switch & suitable		1.	1				
ļ	size of CTs -1						size of CTs -1	ì						
v)	One set of (3 Nos) LED type RYB						One set of (3 Nos) LED type RYB							
1	phase indicating lamps with 2 A SP						phase indicating lamps with 2 A SP		l	i				
:	MCBs for p otection.		 			·	MCBs for protection.		<u> </u>	<u> </u>				
(ivi	Power factor meter with Automatic		i				Power factor meter with Automatic			i				
1	P.F.C.R & CT for unbalanced load -		ł	1			P.F.C.R & CT for unbalanced load -	Ì] .			
	1 Set		-		ļ		1 Set							
	To-Lucion -		 	 										
	Control MCCBs:			 	-		Control MCCBs:							
(i)	6 Nos 100 Amp TP MCCB		<u> </u>	1			6 Nos 125 Amp TP MCCB		i		1			

	Sub-Head of estimate and		Original es	timates		Sub-Head of estimate and		Rev	ised estimate	<u> </u>		Difference	Rea	son
	items of work	Qty.	Rate	Unit	Cost	Items of work (REVISED)	Qty		Rate	Unit	Cost			
	ON/OFF push buttons (2 Nos ON &					ON/OFF push buttons (2 Nos ON &					1.			
	2 Nos OFF)			<u>i </u>		2 Ncs OFF)								
i												<u> </u>		
)	2 Nos 40 Amp TP MCB					2 Ncs 63 Amp TP MCB								
						•								
/)	ON/OFF push buttons (2 Nos ON &					ON/OFF push buttons (2 Nos ON &								
	2 Nos OFF)			1		2 Nos OFF)	1							
5 - 1	3 Nos 32 Amp TP MCB					3 Nos 32 Amp TP MCB								
i) [ON/OFF push buttons (3Nos ON &					ON/OFF push buttons (3Nos ON &								
	3 Nos OFF)		İ			3 Nos OFF)		- 1					ĺ	
ii)	2 Nos 16 Amp TP MCB					2 Nos 15 Amp TP MCB								
				1	· · · · · · · · · · · · · · · · · · ·		-				 			
ii)	ON/OFF push buttons (2 Nos ON &					ON/OFF push puttons (2 Nos GN &								
	2 Nos OFF)		1			2 Nos OFF)	3	1			1			
				† <u>-</u>			+				 			
	Contactors:					Contactors:					 			
	Capacito Duty Contactor with O/L					Capacitor Duty Contactor with O/L	:							
	realy for 50 KVAR 6 Nos	ļ		1		realy for 50 KVAR 6 Nos	1	- 1	·		1			
)	Capacitor Duty Contactor with O/L			 		Capacitor Duty Contactor with O/L								_
	realy for 20 KVAR 2 Nos	l	ì	1 1		realy for 20 KVAR 2 Nos	ľ	· 1			1			
!)	Capacitor Duty Contactor with O/L			1	·········	Capacitor Duty Contactor with O/L					 			
ļ	realy for 10 KVAR 3 Nos	-		1 1		realy for 10 KVAR 3 Nos		į	· :		1			
)	Capacitor Cuty Contactor with O/L			1		Capacitor Duty Contactor with O/L					 			
	realy for 5 KVAR 2 Nos					realy for 5 KVAR 2 Nos		.			1			
	ON/ OFF indication lights for each			 		ON/ OFF indication lights for each		1					 	-
	unit 13 Se is	.				unit 13 Sets	.	.			1 1			
)	Auto - Manual Switch - 1 No.			\vdash		Auto - Manual Switch - 1 No.					 		<u> </u>	
	P.F sensing cable & control MCB			 		P.F sersing cable & control MC3 -					ļ			
	Lot.				100	Lot.		·						
	Time delay relay resistance, aux,			 		Time celay relay resistance, aux.								
	relays A.M selector switch and					relays A/M selector switch and	-				!!			
	necessary control for above.					necessary control for above.		1						
	380 KVAR capacitors comprising of			 		380 KVAR capacitors comprising of								
	(6 x 50 K/AR + 2 x 20 KVAR + 3 x	1				(6 x 50 KVAR + 2 x 20 KVAR + 3 x							As	
	10 KVAR + 2 x 5 KVAR) units	2 set	401842.00	set										
		2 3001	1 401042.00) ser	003004.00	10 KVAR + 2 x 5 KVAR) units	2 5	et	425000.00	set	850000.00	46316.00	actuals	

c)	Sub-Head of estimate and Items of work Capacitor Panel - 300 KVAR	Qty.	—— - 7	Original est			Sub-Head of estimate and			vised estimate Rate	Unit	Cost		
c)	tems of work	Oty	į				Itama of work /DEM/SED)	(JIV)		Rate	Ullic	CUST		
c)	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	atty.		Rate	Unit	Cost	Items of work (REVISED)	Qty		11000				
	Canacitor Panel - 300 NVAK						Capacitor Panel - 300 KVAR				i			
	Automatic Capacitor Control Panel		' .				Automatic Capacitor Control Panel							
	with 300 KVAR capacitors						with 300 KVAR capacitors	Ī			1			
	comprising of (5 x 50 KVAR + 1 x 20				1		comprising of (5 x 50 KVAR + 1 x 20)	. !]	Į			
· •	KVAR + 2 x 10 KVAR + 2 x 5 KVAR)						KVAR + 2 x 10 KVAR + 2 x 5 KVAR)	1			1 :			
1	KVAR + 2 X TU KVAR + 2 X 5 KVARY						unit in a pank formation to achieve	ŀ		!	ì			
	unit in a bank formation to achieve						Automatic operation. The Panel shall	ļ						!
	Automatic operation. The Panel shall						be fabricated out of 2mm thick sheet							
	be fabricated out of 2mm thick sheet				1		steel, dust & vermin proof and				1			,
	steel, dust & vermin proof and]		channel iron frame work of cubicle			1	Į.	i		'
	channel iron frame work of cubicle					•	construction suitable to with stand a							,
-	construction suitable to with stand a				1		fault level of 35 MVA at 415 volts, 3			1	1			
1	fault level of 35 MVA at 415 volts, 3									\	1		i	
1	phase, 50 HZ AC supply including						phase, 50 HZ AC supply including			1	ļ	1	1	
1 1	interconneciton, wiring, painting,						interconneciton, winng, painting,		ĺ	1 .	İ			
	earthing, tabeling and providing				i		earthing, labeling and providing			İ	ì			
	danger plates etc as per			ļ	1		danger plates etc. as per			1	1	1	-	1
	specificastions.		ì	i	}		specificastions.		i	ļ	1			
	630 A TP MCCB (35 KA) - 1 No.			 	 		630 A TP MCCB (35 KA) - 1 No.					<u> </u>		ļ
	800 A TPN Aluminium bus bars - 1				+		1000 A TPN Aluminium bus bars - 1							
ii)		İ	i				No.		ļ	1	1		i	1
	No	ļ					Digital Voltmeter 0 - 500 V with 4			 		1		
iii)	Digital Voltmeter 0 - 500 V with 4		ļ			1	position selector switch - 1 Set		1	ì	1		1	
Ĺ	position selector switch - 1 Set		<u> </u>							 -	 			T
IV)	Digital Ammeter D - 630 A with 4				١.		Digital Ammeter 0 - 630 A with 4		1	1			-	
	position selector switch & suitable	i	1 .		['		position selector switch & suitable			1		j		
	size of CTs -1			!	i	1	size of CTs -1						 	
Λ)	One set of (3 Nos) LED type RYB				T		One set of (3 Nos) LED type RYB				ļ .	ł		!
:-/	phase indicating lamps with 2 A SP				İ	1	phase indicating lamps with 2 A SP	ļ.	1.		i	}		
	MCBs for protection.	1	1				MCBs for protection.		·	<u> </u>				
vi)	Power factor meter with Automatic		+		1		Power factor meter with Automatic		1			1.		1
417	P.F.C.R & CT for unbalanced load			i		1	P.F.C.R & CT for unbalanced load -			1			1.	
1	1 Set	1		ļ ·	1	1	1 Set		1	1		1		<u> </u>
	1 381	+			-	 			1					
<u> </u>	Control MCCBo:	 	 	 	 		Control MCCBs:		1	†	1			
·	Control MCCBs:			ļ		-	Control in Coos.	·	 					
-		-		 	 		5 Nos 125 Amp TP MCCB		 	 		1		
(i)	5 Nos 100 Amp TP MCCB	 -	 	 		·	5 NOS 125 Amp TP MICCB		 		 	1		1
	<u> </u>	 -			ļ		ONIGET auch huttons (2 Nos ON 2	 	+		 		 	
17)	ON/OFF push buttons (2 Nos ON 8	4	İ				ON/OFF push buttons (2 Nos ON 3	1	1	1				1.
Ĺ	2 Nos OFF)				<u> </u>		2 Nos CFF)						 	-
i					1			ļ.,			1		<u> </u>	
iii)	1 No 40 Amp TP MCB		1				1 No 63 Amp TP MCB	1	-				1	
							•	1	1		.:			
iv)	ON/OFF push buttons (2 Nos ON 8						ON/OFF push buttons (2 Nos ON &		.1					
17	2 Nos OFF)	į				i	2 Nos OFF)	1	1	ľ				
į <i>-</i>		1		1				ļ	T					
100	2 Nos 32 Amp TP MCB	 	 	-			2 Nos 32 Amp TP MCB		1					
(v)	2 1703 02 Milly IT WOD	-		 	+	 	2.100 52 1 1119 11	1	+-	+	1	1	1	
	ON/OFF push buttons (3Nos ON 8	+		+	+	 	ON/OFF push buttons (3Nos ON &		+	 -		 		1
V!)	ON/OFF PUSH DUTIONS (3NOS ON &	*	i											
ļ	3 Nos OFF)	-			+		3 Nos GFF)	ļ	+					+
L	1	 		 		-	ON- 40 A- TO (100	 	-	+				
VII)	2 Nos 16 Anip TP MCB			<u> </u>			2 Nos 16 Amp TP MCB	-						
					· · · ·				1					
viii)	ON/OFF push buttons (2 Nos ON 8	k!					ON/OFF push buttons (2 Nos ON &							
in the same	2 Nos OFF)					<u></u>	2 Nos CFF)	1						



S	ub-Head of estimate and			Original e	estimates		Sub-Head of estimate and	,				and the second s	e de seu regulações	er e. Qui chi
lte	ems of work	Qty	1.	Rate	Unit	Cos	st Items of work (REVISED)			evised estima			Difference	Reaso
					- - - - - - - - - - 		triterits of Work (KEVISED)	Qty	<u>'</u>	Rate	Unit	Cost	·	
.2 11	1 KV cable laying upto 400 sq.mm					 	11 KV cohla faving unto 400 -		ļ					
	same trench:				1	ļ	11 KV cable laying upto 400 sq.mm	וו						
St	upplying, laying, testing &		1		 	 	in same trench:	 				↓ ·		
00	ommissioning of one number PVC				· [Supplying, laying, testing 8	4	ĺ		ĺ			
ins	sulated and PVC sheathled/ XLPE		1				commissioning of one number PVC	:		ł			1	
po	ower cable of grade exceeding 1.1				Ì		insulated and PVC sheathled/ XLPE		1		1			
İκ۱	V but not exceeding 11 KV of size		1		1		power cable of grade exceeding 1.1	ŀ	į	1	1			
no	ot exceeding 120 sq.mm but not		ļ		ļ		KV but not exceeding 11 KV of size	s	ļ			i	1	
ev	ceeding 400 sq.mm direct in			1	i	ļ.	not exceeding 120 sq.mm but not						ļ	
05	coeding 400 sq.mm direct in		1	1			exceeding 400 sq.mm direct in	1			i			
git	round in the same tench in one tier		1	1			ground in the same tench in one tier	1	l ·		1]	
	orizontal formation including				}				1	1	İ		•	
	cavation, sand cushioning,						a moderning		1		1		[
pro	otective covering and refilling the		1	ļ			excavation, sand cushioning,	·ļ]		1	ĺ		
tre	ench etc. as required.			i			protective covering and refilling the		l	1	İ		j	
				ļ			trench etc. as required.		}		1		1	
3 (C x 300 sq.mm	2330	ntrs	2524.00	motes	5000000			1	}				
			1	2024.00	metre	5680920.00	3 C x 300 sq.mm	2330	mtrs	1160.00	metre	2702800.00	-3178120.00	
			+								1110210	2702000.00	-31/0120.00	
3 11	KV cable laying upto 400 sq.mm		+	 							 	 		
in :	pipe:		1				11 KV cable laying upto 400 sq.mm			 	 	<u> </u>		
Su	ipplying, aying, testing &		 	 			jin pipe:			İ	İ			
	mmissioning of one number PVC			1	1 ' 1		Supplying, laying, testing &			 	 			
ion	ulated and DVG]	İ			commissioning of one number PVC				1		1	
1115	sulated and PVC sheathed/ XLPE		1	1			insulated and PVC sheathed/ XLPE				1 .		1	
PO	wer cable of grade exceeding 1.1		1				modeled and PVI sheathed/ XLPE				ŧ			
ΚV	but not exceeding 11 KV of size						power cable of grade exceeding 1.1				1		}	
not	t exceeding 400 sq.mm but not						KV but not exceeding 11 KV of size			1 -	-{.	1	1	
	ceeding RCC/ HUME/		1 .				not exceeding 400 sq.mm but not			į .	}		į	
							exceeding RCC/ HUME/			.				
311	ONEWARE METAL pipe as		j i		1 1					Ì	ļ ·	ł		
	uired.		i i]		STONEWARE/ METAL pipe as				{		}	
3 C	x 300 sq.mm	20	nitrs	2477.00	metre	10510.00	required.				1	į		
				2477.00	metre	49540.00	3 C x 300 sq.mm	20	mtrs	1100.00	metre			
11	KV cable laying upto 400 sq.mm				 i			-		. 100.00	mene	22000.60	-27540.00	
in o	pen duct:						11 KV cable laying upto 400 sq.mm				 			
Sup	polying laying, testing &				├ ──∔		in open duct:	- 1		·	<u> </u>			
con	nimissioning of one number DVC					j	Supplying, laying, testing &							
insu	ulated and PVC sheathco/ XLPE	-	i		1 1		commissioning of one number purc	i	- 1		1	.1		
pow	ver cable of grade exceeding 1.1	- 1]		insulated and PVC sheathed/ XIPE	1	- 1				1	
ΚV	but not exceeding 11 KV of size	i] [power cable of grade exceeding 1.1	- 1	. !			-	[
not	exceeding 400 sq.mm in the	1	- 1				KV but not exceeding 11 KV of size		Į	1		· [ļ	
exic	sting masonry open duct as	ł	!			ĺ	not exceeding 400 sq.mm in the	J	Ì	-	·	İ		
recu	uired.	-	ļ				existing marganet and sq.mm in the]						
iedo	uneu.	1			[]		existing masonry open duct as	- 1	- 1					
120-	V 105						required.	ļ	İ		1		·	
13 6	x 185 sq.mm	200	mtrs	1767.00	metre	353400.00	2 0						.	
30	x 300 sq.mm	200		2471.00	metre	404200.00	3 C x 185 sq.mm	200 n	rtrs	785.00	motro	457000 5		
					mene	494200.0C	3 C x 300 sq.mm	200 n	ntrs	1100.00	metre	157000.00	-196400.00	
								-50111		1100.00	metre	220000.00	-274200.00	

							Sub-Head of estimate and		Rev	ised estimate	es		Difference	Reason
	Sub-Head of estimate and			Original est			Items of work (REVISED)	Qty		Rate	Unit	Cost		
	Items of work	Qty.		Rate	Unit	Cost	Items of work (REVIOLD)						·	
.5	S/M 11 KV cast resin compound				İ									
	indoor XLPE cable jointing:	-					Supplying, making, testing &							As per
	Supplying, rnaking, testing &						Supplying, making, testing &							actuals
	commissioning INDOOR cable end						commissioning INDOOR cable end				-	1		
	jointing with cast resin compound						jointing with cast resin compound							
	including lugs and other jointing				[]		including lugs and other jointing							i
	materials, for following size of 3 core,]	i.	materials, for following size of 3 core,				!!			
	XLPE aluminium conductor cable of						XLPE aluminium conductor cable of		1] {			l
						ļ	11 KV grade as required.						-21840.00	ĺ .
	11 KV grade as required.	12	nos	4820.00	each	57840.00	185 sq.mm	12	nos	00.000	each	36000.00		4 .
1	185 sq.mm		nos	4820.00	each		300sqmm	16	nos	3000.00	each	48000.00	-29120.00	1
i)	300 sq.mm	16	nos	4620.00	Eaul	77120.00	00004		İ	i	1	. 1		ļ
					! .	1000 1100 00			 		!	5900250.00	-6993880.00	
	TOTAL OF SUB HEAD-IV		L		ļ	12894130.00			 		1			
			<u> </u>		<u> </u>				 	 	 			
	SUB HEAD - V (CABLES &													
	TERMINATION)		L						 	 	ļ			
					1				 -		 			
1	LY CASLE LAYING &								1		1			ĺ
•	TERMINATIONS:				!	i				 	 			1
1.1	MV Cable .aying upto 25 sq.rnm in				Ī			ļ	1		}			
	ground:			1	İ	İ					<u> </u>			
	giodile		1	1	1	T			<u> </u>	1	ļ			A
	Supplying, laying, testing &		 		1		Supplying, laying, testing &			į				As per actua
	commissioning of one number PVC	İ		1	1	1	commissioning of one number PVC		i		I			site .
	insulated and PVC sheathed/ XLPE		-				insulated and PVC sheathed/ XLPE				į	ļ		requirement
	power cable of 1.1 KV grade of size				1	1	power cable of 1.1 KV grade of size	į	1	ļ				some
					1	1	not exceeding 25 sq.mm direct in		{		1	ŀ		additional
	not exceeding 25 sq.mm direct in	i	1	-		}	ground including excavation, sand		[1			poles
	ground including excavation, sand	j	1				cushioning, protective covering and		1		1 .	1		provided i
	cushioning, protective covering and	}		1			refilling the trench etc. as required.	1	1		1			the campu
	refilling the trench etc. as required.	!	Ì		į		Tenning the trends etc. as requires.	!		}		1		on reque
			 			**************	0 4 X 25 sq.mm	1200	0 mtrs	203.00	metre	2496000.00	1239600.0	from Ni
a)	4 X 25 sq.nim	5800	mtis	208.00	metre	1200400.00	14 A 25 5q.11111	1200	y mas	200.00	1 1110000			authorities.
		Ĺ	<u> </u>					<u> </u>		 	+			+
_				1				·					<u> </u>	
1.2	MV cable laying upto 120 sq.mm in	-		ĺ		-	MV cable laying upto 120 sq.mm ir	ıŀ			1 .			
	ground:	i				<u>i</u>	grouna:	i				ļ	ļ	
					_i	·		<u>:</u>			1			+
	Supplying, laying, testing &						Supplying, laying, testing 8			1				As per actu
:	commissioning of one number PVC						commissioning of one number PVC					1	! !	site
	insulated and PVC sheathed/ XLPE					1	insulated and PVC sheathed/ XLPE							requiremen
	power cable of 1.1 KV grade of size		1				power cable of 1.1 KV grade of size	e!						and
	exceeding 25 sq.mm but not			i			exceeding 25 sq.mm but 110			1 .		1		additional
1	exceeding 120 sq.mm direct in					1	exceeding 120 sq.mm direct in			į		-	1	cables
	ground including excavation, sand					1	ground including excavation, sand							different
	cushioning protective covering and	i			1	}	cushioning, protective covering and				-			sizes
	refilling the trench etc. as required.	1					refilling the trench etc. as required.	1		1				provided
	retaining the trends etc. as required.					ĺ	remany the trench exc. as required.	1	1	l.	į			from Feed
				!		1						<u> </u>		niliar
ia)	3½ x 70 sq.mm	49	3 mtrs	314.00	metre	154802.0	0 3½ x 70 sq.mn	70	Orntrs	314.00	metre	219800.00	64998.0	0 piliar

	Sub-Head of estimate and			Original es	timates		Sub-Head of estimate and			ised estimate			Difference	Reason
	Items of work	Qty.		Rate	Unit	Cost	Items of work (REVISED)	Qty		Rate	Unit	Cost		various
			,		1	·		c						buildings/
)	3½ x 95 sq.mm	95	mtrs	473.00	metre	44935.00	3½ x 95 sq.mm	1500	mtrs	473.00	metre	709500.00	664565.00	hostel etc.
"	0/2 x 50 5q.11111						·						2222222	according to
	4 x 35 sq.min	11480	mtrs	234.00	metre	2686320.00	4 x 35 sq.mm				-	0.00	-2000320.00	laad
						,	d) 3½ x 35 sq.mm	900	mtrs	234.00	metre	210600.00	210600.00	requirement
										-	·		:	of the
							e) 3½ x 50 sq.mm	3100	mtrs	337.00	metre	1044700.00	1044700.00	buildings/
														hostel.
							f) 31/2 x 120 sq.mm	1200	mtrs	508.00	metre	605600.00	609600.00	1.00.0
1.3	MV Cable laying upto 400 sq.mm in				T		MV Cable laying upto 400 sq.mm in					1		1 .
	ground:						ground:							
	i ·													ļ
	Supplying, laying, testing &				1		Supplying, laying, testing &							As per actua
	commissioning of one number PVC			İ			commissioning of one number PVC					1		site
	insulated and PVC sheathed/ XLPE		ļ	Į.	İ		insulated and PVC sheathed/ XLPE					1		requirement
	power cable of 1.1 KV grade of size		1				power cable of 1.1 KV grade of size		į		;	1		and
	exceeding 120 sq.mm but not		1		1	1	exceeding 120 sq.mm but not					}		additional
	exceeding 400 sq.mm direct in				1		exceeding 400 sq.mm direct in		1					cables o
	ground including excavation, sand				1		ground including excavation, sand		i		1			different
	cushioning, protective covering and		İ		ì	Ì	cushioning, protective covering and		1	i ·				sizes
	refilling the trench etc. as required.						refilling the trench etc. as required.		1					provided
a)	3½ x 150 sc.mm	270	mtrs	428.00	metre	115560.00	3½ x 150 sq.mm	-		-		0.00	-115560.00	from Feede
														pillar to
b)	3½ x 240 si .mm	1206	mtrs	721.00	metre	869526.00	3½ x 240 sq.mm	1300	mtrs	721.00	metre	937300.00	67774.00	
														buildings/
c)	3% x 300 sq.mm	6013	mtrs	846.00	metre	5086998.00	3½ x 300 sq.mm	7200	mtrs	846.00	metre	6091200.00	1004202.00	
			<u> </u>					i	<u> </u>					according to
			ļ				d) 3½ x 185 sq.mm	650	mtrs	€55.00	metre	425750.00	425750.00	⊣
			<u> </u>						<u> </u>					requirement
			<u> </u>	ļ	 		e) 3½ x 400 sq.mm		mtrs	1122.00	metre	785400.00	785400.00	of the
1.4	MV Cable laying upto 25 sq.mm in		1				MV Cable laying upto 25 sq.mm in		İ.				•	
	pipe:		-				pipe:				<u> </u>			4
			ļ		<u> </u>									1
	Supplying, laying, testing &		1				Supplying, laying, testing &		į		1			
	commissioning of one number PVC						commissioning of one number PVC							
	insulated and PVC sheathed/ XLPE				ĺ	1	insulated and PVC sneathed/ XLPE					` '		
	power cable of 1.1 KV grade of size						power cable of 1.1 KV grade of size			1				
	not exceeding 25 sq.mm in the		}				not exceeding 25 sq.mm in the							
	exceeding RCC/ HUME/		ĺ				exceeding RCC/ HUME/		1					As per actua
	STONEWARE/ METAL pipe as					1	STONEWARE/ METAL pipe as		.[site
-,	required.		<u> </u>				requirec.		<u> </u>	Ł				requirement.
a)	4 x 25 sq.mm	230	mtrs	138.00	metre	31740.00	4 x 25 sq.mm	1000	mtrs	138.00	metre	133000,00	106260.00	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \

a to the ad ad antimorto and			Original est	imates		Sub-Head of estimate and		1,00	ised estimate	1 Imit	Cost		
Sub-Head of estimate and	Qty.		Rate	Unit	Cost	tems of work (REVISED)	Qty		Rate	Unit	COST		
items of work	Qty.		Itato									-	
MV Cable laying upto 400 sq.mm in						MV Cable laying upto 400 sq.mm ir	1. 1			1		l	
	1	- 1				p.pe:							
pipe: Supplying, laying, testing &	-					Supplying, laying, testing &		1					
						commissioning of one number PVC	1	- 1					
commissioning of one number PVC	- 1			1		insulated and PVC sheathed/ XLPE					1	i	
insulated and PVC sheathed/ XLPE	1	i				power cable of 1.1 KV grade of size		- 1		1		1	
power cable of 1.1 KV grade of size	- 1	į			1	not exceeding 25 sq.mm but no	t			i			
not exceeding 25 sq.mm but not				1		exceeding 400 sq.mm in the existing	1				· i	j	
exceeding 400 sq.mm in the existing				1 1		RCC/ HUME/ STONEWARE	/				1		
RCC/ HUME/ STONEWARE/	1	- 1				METAL pipe as required.		1		1 1			
	١									· .			
METAL pipe as required.		mtrs	358.00	metre	14320.00	3½ x 150 sq.mm			-		0.00	-14320.00	
3½ x 150 sq.mm	40	mus	336.00	mede	14020.00								
	100	mtrs	645.00	metre	54500.00	3½ x 240 sq.mm	100	mtrs	645.00	metre	64500.00		dò
3½ x 240 sq.mm	100	ITIUS	040.00	111000									
	170	mirs	776.00	metre	131920.00	3½ x 300 sq.nim	170	mtrs	776.00	metre	131920.00	0.00	
3½ x 300 sq.mm	170	IIIus	770.00	·	151020.00								
	190	mirs	176.00	metre	31680.00	4 x 35 sq.rnm	-		-	-	0.00	-31680.00	As per act
4 x 35 sq.mm	100	11105	170.00	meac	01000.00								site
				+		d) 3½ x 35 sq.mm	50	mtrs	129.00	metre	6450.00	6450.00	requiremen
7		 											1
ļ			·	 		e) 3½ x 50 sq.mm	.100	mtrs	172.00	metre	17200.00	17200.00	
				+				-					
				+		f) 3½ x 120 sq.mm	100	mtrs	345.00	metre	34500.00	34500.00	1.
				+									-
		 		1		g) 3½ x 185 sg.mm	50	mtrs	492.00	metre	24600.00	24600.00	4
		 		1									4
						h) 3½ x 400 sq.mm	100	mtrs	961.00	metre	96100.00	96100.00	4
		 	·					<u> </u>					
							1		-				ļ
MV cable laying upto 400 sq.mm in		1		1		MV cable laying upto 400 sq.mm	in			-	·		İ
open duct:				i i		open duct:							
Supplying, laying, testing &		1				Supplying, laying, testing	&	1		1			
commissioning of one number PVC						commissioning of one number PV	C	1					
insulated and PVC sheathed/ XLPE				1 1		insulated and PVC sheathed/ XLF				1	1		
power cable of 1.1 KV grade of size		1	Ì			power cable of 1.1. KV grade of si	ze		1 .	1 .	i .	1.	
not exceeding 25 sq.mm but not		1				not exceeding 25 sq.mm but r							
exceeding 400 sq.mm in the existing		-	ĺ			exceeding 400 sq.mm in the existi		1	F .				1
masonry open duct as required.			[1		masonry open duct as required.							
industry opsit dast as required.							.						
3½ x 150 sq.mm	20	mtre	354.00	metre	7080.0	0 3½ x 150 sq.mm	-		-		G.00	-7080.00)
				i									1
3½ x 185 sq.mm	30	mtis	536.00	metre	16080.0	0 3½ x 185 sq.mm	5	0 mtrs	536.00	metre	26800.00	10720.00	0
			1										
3½ x 240 sq mm	100	mtrs	641.00	metre	64100.0	0 3½ x 240 sq.mm	10	0 mtrs	641.00	metre	64100.00	0.00	0
3½ x 300 sq mm	240	mtrs	772.00	metre	195260.0	0;31% x 300 sq.mm	13	0 mtrs	772.60	metre	100360.00	-84920.00	
		1		1.					1		1		As per ad
!	į	1		1					1				site
i .								1.	1		1		requirem
i		1	1		1	1		•	1		7	1	Li Califa il Citat

	Sub-Head of estimate and	Original estimates	Sub-Head of estimate and	Revised estimates	Difference Reason	
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				000000		
		The second secon	and the second s			
4						<i>f</i>

	Sub-Head of estimate and			Original es	timates		Sub-Head of estimate and		Re	ised estimat	es		Difference	Reason
	Items of work	Qty.		Rate	Unit	Cost	Items of work (REVISED)	Qty		Rate	Unit	Cost		
				,			e) 3½ x 50 sq.mm	100	mtrs	170.00	metre	17000.00	17000.00	
				-				i			7.0			
							f) 3½ x 120 sq.mm	100	mtrs	340.00	metre	34000.00	34000.00	
							17 071 X 120 04.1111			<u> </u>	11.00.0			
			-				g) 3½ x 400 sq.rnm	100	mtre	955.00	metre	95500,00	95500.00	
			ļ				g) 3/2 X 400 Sq.11111		HIUS	300.00	meae	90000.00	30000.00	
	MV Cable End Termination &		-				MV Cable End Termination &							
					1						1 1	Ī		
	Joining				 		Joining				!			
			L								l:l			
	BRASS COMPRESSION GLAND						BRASS COMPRESSION GLAND				1 1	ľ		
1	S/M LV/MV Cable end termination:						S/M LV/MV Cable end termination:							
	Supplying, making, testing &				1	7.	Supplying, making, testing &							
	commissioning end termination with		1		l i		commissioning end termination with				i !	-	· .	
	brass compression gland and			İ			brass compression gland and				i i			
	aluminium lugs for following size of		1				aluminium lugs for following size of				1 1			
	PVC insulated and PVC sheathed/		1								[]			
	XLPE aluminium conductor cable of		İ				PVC insulated and PVC sheathed/				1 1	1	•	ļ
							XLPE aluminium conductor cable of	1				1		
	1.1 KV grade as required.		<u> </u>		<u> </u>		1.1 KV grade as required.							
<u>) </u>	3½ x 70 sq.mm	2	nos	168.00	each	336.00	3½ x 70 sq.mm	8	nos	168.00	each	1344.00	1008.00	
			<u> </u>											1
<u>:</u>	3½ x 95 s į.mm	16	nos	197.00	each	3152.00	3½ x 95 sq.mm	6	nos	197.00	each	1182.00	-1970.00	1
														i
)	3½ x 150 sq.mm	2	nos	278.00	each	556.00	3½ x 150 sq.nim					0.00	-556.00	1
									·		1	0.00	-550.00	
)	31/4 x 240 sq.mm	20	ncs	381.00	each	7620.00	3½ x 240 sq.mm	20	nos	381.00	each	7620.00	0.00	ł
					1 300	1020.00	0/2 X 2 +0 3q.min		1105	301.00	eacn	7620.00	0.00	
)	3½ x 300 sq.rnm	48	ncs	508.00	each	. 34384 00	3½ x 300 sq.mnı			F00.00		(2222		1
			1103	300.00	Cauli	24304.00	1372 X 300 SQ.IIIIII	34	nos	508.00	each	17272.00	-7112.00	
	4 x 25 sq.nim	140	nos	137.00		40400.00	1.05				LI			
	X 20 34.1111	140	1103	137.00	each	19180.00	4 x 25 sq.mm	580	nos	137.00	each	79460.00	60280.00	As per acti
))	4 x 35 sq.n:m	000		457.00										nito
l	14 x 35 sq.11111	286	nos	157.00	each	44902.00	4 x 35 sq.mm			-		0.00	-44902.00	Site
_			<u> </u>											requiremen
							d) 3½ x 35 sq.mm	. 10	nos	223.00	each	2230.00	2230.00	
											- 505.1	2200.00	2200.00	
							e) 3½ x 50 sq.mm	10	nos	262.00	oooh	2620.00	0000.00	
	!		T				7		1103	202.00	each	2020.00	2620.00	
					1		f) 3½ x 120 sq.mm							
					 		1/ U/Z X 1/20 SQ.IIIII	101	nos	383.00	each	3830.00	3830.00	
					 -		N 61/ 166							
							g) 3½ x 185 sq.mm	8	nos	616.00	each	4928.00	4928.00	
			L		1		h) 3½ x 400 sq.mm	14		1109.00	each	15526.00	15526.00	

ems of work		Qty.	T-	Original es			Sub-Head of estimate and			organd				Mg. Tri
			 	Rate	Unit	Cost	items of work (REVISED)	Q	<u> </u>	evised estima			Difference	e Re
			 	 	 				4	Rate	Unit	Cost		 '''
							Supplying and laying of 100mm	GI	+	+				+
	i			1			nine class D und	31	i	1				+-
*				1	1		pipe class-B under the road/ pli	inth	-		1		1	
	1			1	1 .		protection/ pucca path not less the	nan		1]		[
	- 1				1 1	ļ	0.75 mtr below the ground level		İ	.1	1	J	1	1
	1				1	}	crossing the ground level	TOT	1		1			
		ı		1	[1	crossing HT/ LT cables v	vith	1.].	1.	[1
	1	Ì				į.	trenchless system and making go	od	1	ļ	1	1		
						ĺ,	the damages ats	- 1	1]				
							the damages etc. as required.	40	0 mtrs	1575.00	metre	620000 00	22222	i .
		T			 -		C		Ţ	1	ene	630000.00	630000.00	L
		}			1 (];	Supplying and laying of ISI Mark	ed		 	 	 		Cinco
		1	ļ	[16	DUPP PN-4 DIDE having canacit.		1	1	1	1 . 1		Since
		- 1				14	4NO/ SO.CM Under the bitumina		ĺ]	1	1		floor/
		Ì	- 1		! !	jr	metal road/ floor/ pacca passage o	4-	1		1	1		passa
	1		1			l _t	by trenchless system(HDD Metho	IC.	i	1		1		cutting
	.]	i				l.	with machine including jointing t	(a)	1		1	1		allowe
	- 1		.			l.	INDE ping with	hel	1	1	1	j		Client
•	1			i	1	}. 1_	IDPE pipe with couplers wherev	er	1	1	1	1 .		Depart
	1		į	i		111	lecessary and covering mouth	of	1	1	1	1 1		ond :
			- 1	1	·	P	pipes etc. complete as required.		1	1	1	L		and i
									1				-}	approp
						(6	a) 100mm dia	220	mtra	100-	L			too so
		+							mtrs	1698.00	metre	570528.00	570528 00	laid
						(t	o) 140mm dia		 					trenchi
							The state of the s	300	mtrs	2382.00	metre	714600.00	714600.00	system
						te) 200mm dia		<u> </u>			. 1-300.00	/ 14600.00	accordi
							/ ==Strint GIB	198	mtrs	3178.00	metre	629244.00		site
			- 1			c	Upplying and I	1				029244.00	629244.00	equire
		1	-	. 1		13	upplying and laying of ISI Marke	d					'	-quile
		- 1	- 1	1	1	10	UPF PN-4 Dine having conseit	ا ا	1			.		
		i		}	1	144	NY SO.CM inder the bituminal.	_1]	l	!	**	1	
		- 1	İ	- 1	i	(13)	tidi (Dag/ tinor/ racca cacaaaa	1 1						
	1		- 1	-		Dy	Vianual motion including initial	_1 .1			1			
			- 1	- 1	-	Jun	t nucle with countries	- F			ł	. 1		
		1			1	- VVI	refever necessary and council.	.1	.	ľ		1		
	1		1	1.	-1	me	outh of pipes etc. complete as	3	- 1	1.	J	j		
					i	rec	quired.	\$	1	- 1	. l			
-			1	T		(3)	100mm dia		1.	1	1	1	1	
	Ì	1		l		(a)	room n dia	300 r	ntrs	1300,00				
		1	1	į	1	- 1		1		, 555.00	metre	390000.00	390000.00 S	ince
	İ	İ	1	!	1	1			1	l	ľ		ifi	or/ p
		1		ı	1	1	•			ĺ			110	oon p
		1		1				1 1	}	j	-		P	assage
	.	į		-	j	1			1		-		CL	itting is
		- 1	ŀ		1	1			ļ	l		1	al	lowed
	ĺ	- 1	- 1		1]	1		CI	ient
		-		. 1	1	l				1	1	. [De	epartme
				1	1	1	,		1			.	lan	d is
		- 1		. 1		1		.	- [- [1	1	an	propria
•	1				1	1	1	1			!	1 .	to) so t
	.	1	- 1	}	- 1		1			ŀ		. 1	100	
	.		- 1		ĺ				[1		laid	
	!	1	1	1		1	·	1].	1			nchless
	i			·	1	1	İ	j			1.	. 1	sys	stem
								1	1		ŀ		acc	cerding
										1		1	site	
														uireme
														war Citie

Sub-Head of estimate and			Original est	timates		Sub-Head of estimate and	1	Revis	sed_estima	tes		Difference	Reason
Items of work	Qty.		Rate	Unit	Cost	Items of work (REVISED)	Qty		Rate	Unit	Cost		
						Supplying and laying 50mm dia OD DWC HDPE pipe confirming to IS- 14930 (Part-II) and ISI marked of 1.2					,		Pipe laid in RCC foundation of poles as
						mtr length suitably bended for cable entry and grounting the same in the foundation of pole complete as required. (Rex/ Duraline Make)	and the state of t	Nos	154.00	each	86240.00		was no possible laid the Coupe in RC foundation.
TOTAL OF SUB HEAD-V					10811371.00					<u> </u>	17543804.00	6732433.00	
TOTAL OF SUB HEAD-V				 	10011371.00					 	17545604.00	0132433.00	<u> </u>
SUB HEAD-VI (STREET LIGHTING	OLES	FITTIN	IGS)				-						
Supplying, installation, testing and										-			lt w
commissioning of 410 SP - 31/9 Mtr.													decided the Cli
High steel tubular pole complete with				-									Deptt.
1 metre long bracked duly primed										1.			consultant
and painted complete with base plate							-				İ		mtrs hei
of 30 cm x 30 cm x 12 mm size in						`		:					Octagonal poles ins
cement cor-crete 1:3:6(1 cement : 3							į						the cam
coarse sand . 6 graded stone													& 9 h
aggregate 40mm nominal size)							i						the bound wall in pl
foundation excavation and refilling								.		-			of high s
etc. as required (as per													tubular po
specifications).	231	Nos	10602.00	each	2449062.00		· -	·			0.00	-2449062.00	

	Sub-Head of estimate and	 		Original est			Sub-Head of estimate and		K6	vised estimat	es		Difference	Reason
_	Items of work	Qty.		Rate	Unit	Cos	t Items of work (REVISED)	Qty	1	Rate	Unit	Cost		
1		1 1				· .	Supplying, Installation, Testing and	1						The increa
							Commissioning of 7.5 mtrs. long	,	ŀ		1	1 1	-	in quantity
		1 1			i	ł	occagonal pole galvanized		1	1	į ·		ł	poles is
		1 1			1	-			İ	İ			ļ	per s
		1 . [continuously tapered (bolt fixing type)	1			1			
							in single section made out of 3mm							requireme
		1 1					thick sheet having top dia 70mm and	t l			l			finalized
l		1					bottom dia 155mm with 04 Nps		1		ŀ			consultation
		1 . 1					foundation bolts of size 24mm dia x		}				İ	with cli
		1 !				ļ	600mm long with integral junction		ì		}	j	1	The heigh
									!					pole is
		1 . 1			İ	j	box. The foundation bolts should be	1			1		İ	per
		1 1					hot dipped galvanized complete with		1]	requireme
					i		door and locking arrangement	tl .		}		1		with r
		1 1			!		including cost of concrete cemen							width
		1 1			ļ	ł	1:2:4 with foundation of size		1					
					i ·	1	0.8X0.8X1.4 mtr depth in ground with]						quantities
	•						o.axo.ex1.4 intracepartin ground with	1		}		1		per ac
					1	l	cost of iron bars for fixing of pole i/o	1			1	1		cost
					l		providing and fixing bakelite sheet of	f			1	į		inclusive
			i				size 25cm x 10cm x 6mm thick	.i		i .				bracket.
				-		}	connector, TPN aluminium bus bar	-		ļ			İ	
		1 1				}	of suitable size and SP MCB of 10		1	j		į.		
		łi				i	Amp rating complete etc as required							
						1.		1					ĺ	1 .
			i			ĺ	(Make:-Philips/GE/Wipro/	ļ	1		ł			.
ŀ							Volmont/Lyseght/Bajaj).		Nos	18300.00	each	2159400.00	2159400.00	
		1 1	.				Supplying, Installation, Testing and							
						i	Commissioning of 9.0 mtrs. long	į.	Ì					1
			i			1	octagonal pole galvanized	1				}		
		1					continuously tapered (bolt fixing type)	1						
							in single section made out of 3mm	1	1 .			j		1
		1 1					thick sheet having top dia 70mm and	1						İ
		{ }	- 1				bottom dia 170mm with 04 Nos.	1	-				·.	
			- 1				foundation bolts of size 24mm dia x	ļ.	1					
	٠.	1 1	!				750mm land with interest of the X				i			1
			-				750mm long with integral junction							
			-				box. The foundation bolts should be	i	İ					1
			- 1				hot dipped galvanized complete with	1	}			-		ĺ
	•		ļ				door and locking arrangement	į.						١.
			1				including cost of concrete cement		j	· i	1			
							1:2:4 with foundation of size	ļ						
			ĺ				0.8X0.8X1.4 mtr depth in ground with					i		
		i					cost of iron bars for fixing of pole #c	ĺ						
							providing and fixing bakelite sheet of							
							size 25cm x 10cm x 6mm thick,			ĺ	:			
				į	-		connector TOM etiministry							
				i i			connector, TPN aluminium bus bar							
							of suitable size and SP MCB of 10				. i		ļ	
					į		Amp rating complete etc as required.						. 1	
							(Make: Philips/GE/Winro/							
					1		Volmont/Lyseght/Bajaj).			1				
				į							İ			
				i	1	-					į			
1					1			158	1	21000.00	each	3318000.00		

	Sub-Head of estimate and			Original es	timates		Sub-Head of estimate and		120	vional potimo			0:41	
Ţ	items of work	Qty.	J	Rate	Unit	Cost	items of work (REVISED)	Qty		vised estimat			Difference	Reaso
٦			 	1	J		THE THE WORK (NEVISED)	Gily	 	Rate	Unit	Cost		
	Supplying, installation, testing and		 				Supplying, installation, testing and				 	<u> </u>		
	commissioning of road way lighting		1	1			commissioning of soul resting and		ļ					150
	luminaires single pieve, integral, grey						commissioning of road way lighting				1	1 -1		HPSV fit
	powder coated die-cast aluminium						luminaires single pieve, integral, grey							IP66/65
- 1	housing, GLASKOTE pot optics				1 1		powder coated die-cast aluminium				-	.] .		150W S
	reflector with acrylic bowl cover and		1	1	l i		housing GLASKOTE pot optics				ļ		•	T tut
ŀ	accessories on the exiting pole of the						reflector with acrylic bowl cover and				1			lamp
	following ratings:		!				accessories on the exiting pole of the			Ì	1			250W
	Bajaj make BGEST 150 SV		ļ				following ratings:					1 1		HPSV f
	complete with 150 watt S.V.T lamp	040	ļ., '				Bajaj make BGEST 150 SV							IP66/65
		218	Nos	5400.00	each	1177200.00	complete with 150 watt S.V.T lamp	-		-	-	0.00	-1177200.00	
	Bajaj make BGEST 400 SV	450	.				Bajaj make BGEST 400 SV		-					T tu
+	complete with 400 watt S.V.T lamp	158	Nos	5600.00	each	884800.00	complete with 400 watt S.V.T lamp		ŀ	_		0.00	-884800.00	1
į							Supplying, installation, testing and		T		 	0.00	-00-1000.00	iamps
-							commissioning of 150 watt HPSV IP							
				1	1 1		66/65 street light fitting having single]				-	İ
ĺ			1				pioce internal accordance in the straight internal accordance in the straight internal accordance in the straight internal accordance in the straight internal accordance in the straight internal accordance in the straight internal accordance in the straight internal accordance in the straight internal accordance in the straight internal accordance in the straight internal accordance in the straight internal accordance in the straight internal accordance in the straight internal accordance in the straight in the straight internal accordance in the straight internal accordance in the straight internal accordance in the straight internal accordance in the straight internal accordance in the straight internal accordance in the straight internal accordance in the straight internal accordance in the straight internal accordance in the straight in the strai		l i			1		1
			1		.		piece, integral powder coated die-							
				!			cast aluminium housing, pot optics							
	*		İ				reflector, acrylic bowl, igniter, ballast,		i i		1			
			1		!		capacitor etc. complete with 150 watt		l					
			ì		1 1		SON-T tubular lamp on existing			•	1			
	· .						street light pole complete as		-			1		
1]		1		required.					1 . 1		
									<u> </u>					
	į					•	(Philips make Cat No.SGP-325							Fittings
							1XSONT 150\W/GE make Mcdel				1	1 1		provided
	1		1	j			No.GER-150W SPPT/DPP/ Wipro				i .	l i		per de
							make Model No.WST 71150 1 x							taken b
				 			150W HPSVT).	218	Nos	4300.00	each	937400.00	937400.00	Client I
				 										& as pe
	. 1						Supplying, installiation, testing and	,						requiren
							commissioning of 250 watt HPSV IP-							- Squilett
							66/65 street light fitting having single							
						1	piece, integral powder coated die-			-				
	4						cast aluminium housing, not optics		1					
							reflector, acrylic bowl, igniter, ballast						1	
							capacitor etc. complete with 250 watt							
						. !	SON-T tubular lamp on existing	ļ						
		1	ļ			İ	street light pole complete as	.	1		-			
							required.			ĺ				
_			i				•	1	1					
			,				(Philips make Cat No.SGP-338)							
						[-	1XSONT 250W GB/GE make model			ļ				
		1	1				No.SKYGEN Pro.250V/Wipro make							
			•			li	Model No.WST 76250 1x253	1						
						li	HPSVT).		.				.	
								158	Noe i	6650.00	each	1050700.00	1050700.00	

Sub-Head of estimate and			Original est	timates		Sub-Head of estimate and		Re	vised estimate	es		Difference	Reason
Items of work	Qty.		Rate	Unit	Cost	Items of work (REVISED)	Qty		Rate	Unit	Cost		
Supplying and fixing of pole box of minimum size 250mm x 300mm x 150mm deep made from 16 SWG MS sheet duly fitted with 100 Amp TPN aluminium bus bar, din bar 10 Amp 10 KA °C' series SP MCB				-		Supplying and fixing of pole box of ninimum size 250mm x 300mm x 150mm deep made from 16 SWG MS sheet duly fitted with 100 Amp TPN aluminium bus bar, din bar 10 Amp 10 KA 'C' series SP MCB							Not required
complete with MS clamp for fixing on the street light pole including connections, earthing and painting etc. as required.	389	Nos	557.00	each		complete with MS clamp for fixing on the street light pole including connections, earthing and painting etc. as required.	· .			-	0.00	-216673.00	as the boxes are in built in the poles
Supplying and drawing 3 x 4 sq.mm FR PVC insulated copper conductor, single core cable in the existing pole						Supplying and drawing 3 x 4 sq.mm FR PVC insulated copper conductor,	-						
including connections etc. as required. Supplying and fixing 5 Amps to 32	3700	mtrs	58.00	metre	214600.00		3700	mtrs	85.00	metre	314500.00	99900.00	
Amps rating, 240 Volts 'B' series miniature circuit breaker suitable for lighting and other loads of following			·			Supplying and fixing 5 Amps to 32 Amps rating, 240 Volts 'B' series miniature circuit breaker suitable for lighting and other loads of following					·		Not required as SP MCE is included in
poles in the existing cut out of the pole. Complete with connection, testing and commissioning etc. as						poles in the existing cut out of the pole. Complete with connection,							the item o
required.	· ·		-			testing and commissioning etc. as required.							
Single pole and neutral Supplying and laying following sizes	3/6	Nos	171.00	each	64296.00	Single pole and neutral				-	0.00	-64296.00	
to GI pipe (medium class) in ground						Supplying and laying following sizes to GI pipe (medium class) in ground			·				As road floor/ pucca passage
including excavation and refilling as required (for road crossing).						including excavation and refilling as required (for road crossing).							cutting is no allowed by
GI pipe 100mm dia (Medium Class)	300	mtrs	850.00	metre	255000.00	Gi p.pe 100mm dia (Medium Class)	-		-	-	0.00	-255000.00	
Gl pipe 80mm dia (Medium Class)	600	mtrs.	700.00	metre	420000.00		<u>-</u>		•	-	0.00	-420000.00	Department. So item i
TOTAL OF SUB HEAD-VI					5681631.00						7780000.00	2098369.00	not executed



	Sub-Head of estimate and		Original est	imates		Sub-Head of estimate and		evised estimat			Difference	Reason
	Items of work	Qty.	Rate	Unit	Cost	Items of work (REVISED)	Qty	Rate	Unit	Cost		
	SUB HEAD-VII (FEEDER PILLAR)	- Gety.				SUB HEAD-VII (FEEDER PILLAR)						
	SUB HEAD-VII (FEEDER FILLAR)			l								
	County and Swing of floor mounting		 			Supply and fixing of floor mounting,					1	
- 1	Supply and fixing of floor mounting,	1	.			totally enclosed, compartmentalized,	1	-		1		
	totally enclosed, compartmentalized,		1			cubical, dust, vermin proof and					i	
	cubical, dust, vermin proof and					outdoor type Feeder Pillar (IP55)	ļ.				1	
	outdoor type Feeder Pillar (IP55)	1	1			fabricated out of 2mm thick cold	İ	1]	i	
	fabricated out of 2mm thick cold	l			1		1.		ļ		1	
	rolled carbon annealed, sheet steel,					rolled carbon annealed, sheet steel,		1	ľ		į.	
	internally strengthened with angle	1		1 1		internally strengthened with angle	1.		j		. 1	
	iron frame work with following	1				iron frame work with following						
	incoming and outgoing feeders			1		incoming and outgoing feeders	l		ļ		ŀ	
	(fabricated out of 2 mm CRCA sheet			1		(fabricated out of 2 mm CRCA sheet	.		.]	ļ . į	ļ	
	steel) including supplying and	i		1		steel) including supplying and	1	ì	1	l i	1	
	, , , , , , , , , , , , , , , , , , , ,	1	İ			mounting including making		.		1	1	
	mounting including making			!		connections/ inter connections with	ļ' .	. i	ļ		1	
	connections/ inter connections with						1 .		1	l i		
	lugs/ gland crimping tools, testing	1				lugs/ gland crimping tools, testing						
	and commissioning.					and commissioning.						
.1	STREET LIGHT FEEDER PILLAR					STREET LIGHT FEEDER PILLAR						
									ļ			
)	incoming:			1		Incoming:			<u> </u>			
	100 A 4 pole MCCB (25 KA) with on/					100 A 4 pole MCCB (25 KA) with on/				1		
	off indications in the front.					off indications in the front.						
1	LED type phase indicating - (R, Y &			T .		LED type phase indicating - (R, Y &			1			
,	B) Lamps provided with 2 A SP					B) Lamps provided with 2 A SP			1			
	MCBs for protection having lens and	1		1 1		MCBs for protection having lens and		1	1			
	lamp opneable from the top - 3 Nos	į				lamp opneable from the top - 3 Nos						
	Bus Bar:-			+i	· · · · · · · · · · · · · · · · · · ·	Bus Bar:-			<u> </u>			
1	One No. († No.) 200 Amp TPN Al			!		One No. (1 No.) 200 Amp TPN AL.						
1	bus bar	1	ļ			bus bar			ļ			
	bus bar			-		ous bai						
				 		Outgoing:-			+	 		
<u>) </u>	Outgoing:-			1		63 A DPMCB - B Series 10 KA - 12			+			
'	63 A DPMCB - B Series 10 KA - 12			i 1		Nos			!	1		
	Nos					INOS				ļ		Ì
	1				<u> </u>		ļ					
1)	Control:					Control:	<u> </u>		+			
)	4 Pole contactor with a thermal rating		}	1 1		4 Pole contactor with a thermal rating						
	of 63 A - 1 No			1		of 63 A - 1 No.			1			
<u>(1</u>	Time switch with daily dial, suitable		Ţ	1		Time switch with daily dial, suitable						
	for operationg on 230 volt, single					for operationg on 230 volt, single	i			1		
w.n	phase, 50 Hz, AC Supply - 1 No.					phase, 50 Hz, AC Supply - 1 No.	·					
ii)	Auto - Manual Selector switch - 1					Auto - Manual Selector switch - 1				7		
	No.1	į	İ .			No.]				1		
	ON/ OFF Push Buttons - 2 Nos	5 set	39803.00	set	*00045 00	ON/ OFF Push Buttons - 2 Nos	5 set	56300.00	set	281500.00	82485.00	

Sub-Head of vatimate and		Original esti	males	Sub-Hawa of espansing and	Re	rided ostana	<u>re</u>	L	Difference	Reaton
terns of work	Cmy.	Rate	ใm∎ !	Cost Ileas of work (AEVISEO)	Qty!	Rata	Ukriğ	Çost		<u> </u>
7 1				Fabrication, supplying, entipliation, testing and commissioning of (IP-54) outlook type Flooder Pilet fabricated with areas thick CHCA sheet, durit a vernin proof with hinger singled doubte door mutured from their each and with toking arrangement having buttons cable early duy fixed occurs above Git, with brick mass ray foundation including fabricating, supplying, leastledon, testing a commissioning of competitionary sites fabricated with armothers are tested pilet, cable alloy at both site, decaphable grand place having bottom cable arthy particle with sites to be tested pilet, cable affect and by at both site, decaphable grand place having bottom cable, duty painted with one cast of powder cases paint of approved colour for both toader pilet and curved panel board including commactions with each study of alternation stops, with heat shifthable coloured steepeds.		- Kalla				As Stelloulitings! Cessis att. which are to the are to the are to the total the langth (4 £T cables, Feeder pillar provided in between substalons and truicings) nortals to be test.
				insung and commissioning of following appearance, earlying their body etc. complete as required, encluding LEO phase indicating LEO phase indicating learns for each of the outgoing sweethers ricces, for the following feeder plans: [Feeding Pillar Mo.1 Suc-Statton No.5 main existing Cirt's Hostell 4/uprox. stze of feeder pillar 1290 etc. x1.65me/ x1.20mbr deep)	 			 		

	Sub-Head of estimate and		Original and	Imates		Sub-Head of entire and		levised estima	105	$\overline{}$	Datterance	Reason
	Income of work	Orty.[, Rele	Unit	Cost	Rems of work (REVISED)	alvi	Rete	Unit '-	Cost		
		 - ·				kæoming			·			
	··· —· —	·-}	∤ ∵——	- -		600 Ampu three pole hortzontal	-i $-$		 	-		
	;	i l				drawoul type at Grown breaker of	- 1	:				
	:	'		l i		fault breaking capacity 60 KA (lest-	- 1	•		!		
			i	ı i		In upo 433 V) manually operated.	i		!			
		1 1	l .	l i		fitted with interlucked door, suppressed	· I		1	- 1		
		; 1	l .	l i		safety shullers, muchanical CNIOFF	·			i		
	:	l i	ļ .	l i		and service/technical position	· !		:	!		
		! !	1	l i		indicators and frame earliesu				- 1		
		i !	1	!		contact, conforming to 15-13947-2			I			
		i i	i	j :		1993 As smendes upto called				i		
	•	!		/					i ;	- 1		
		i l	1	1 :		солими или (Nowing accessories	- 1		! :			
		1 !	i			required for AQ3 - 1 No			1 !	!		
			- ·	$\perp \perp$					I			
		· i				Independent manual earny closing						
	:	i	 	!		imed anism₁1 No.		:		i		
		i !		٠		Microprocessor release (Etal & EMC)					!	
		ļ	1	- 1		continued for over current, earth fault		i	1 1	i	- 1	
		ı į	1	- 1		and short direct protection - 1 Set	!	!	1 1	!	i	
,		.4. !	i					!	1 1	İ		
						Ancroprocessor release (EMI & EMC		+	 	—···· -		
			1	- 1		serghed) for over corners, early fact;	ļ	1	1 1	!	!	
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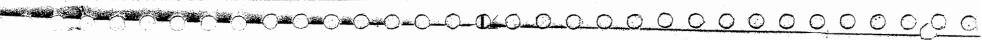
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Sub-Head of estimate and		Original est			Sub-Head of estimate and			vised estimate			Difference	Reason
Items of work	Qty.	Rate	Unit	Cost	Items of work (REVISED)	Qty		Rate	Unit	Cost		
					OUTGOING SWITCHGEARS:							
	-				315 Amp 3 pole 415 Volts 50 KA				-			
					breaking capacity MCCB with	j						
			1		thermal magnetic release - 4 Nos							
		1			mermai magneuc release - 4 Nos	1						ĺ
												<u> </u>
	1 1				200 Amp 3 pole 415 Volts 35 KA							Ì
			1		breaking capacity MCCB with		1.					
	j				thermal magnetic release - 3 Nos							
	1 1				Diomina magneta release							ļ
					400 400 0 00 00						·	
			l í		100 Amp 3 pole 415 Volts 25 KA		Ì					i
	. i				breaking capacity MCCB with							İ
, 1 2			1		thermal magnetic release - 1 No. 1							
					(Note: lcs = 100% lcu for all							
	1		1		MCCBs)		İ					
·					MCCBs:						000000000	
					<u> </u>	1	set	360000.00	set	360000.00	360000.00	
					b) (Feeder Pillar No.1 of Sub-							
	1				Station No.2 near existing Hostel							
	i	ļ	! 1		No.8)		ļ	· ·		i I		
	+		 		(Appx. Size of feeder pillar 1.9)					 		
		į					i	1		l i		
					Mtr. x 1.50 Mtr. x 1.20 Mtr.)						····	
			L		Incoming:-		ĺ					1
					800 Amps three pole horizontall							
	1 1	1] į		drawout type air circuit breaker of		ŀ	Į.		1		1
	1	i.	[· · .]		fault breaking capacity 50 KA (Ics ±					.]		
					lault bleaking capacity 50 KA (ICS =							}
	1 1		l		icu upto 433 V) manually operated,		١.		i	1		ł
					fitted with interlocked door, automatic			l		i i		
		1			safety shutters, mechanical ON/OFF				}			1.
1		·			and service/test/isolated position				ł	1		1
			1 1		indicators and frame earthing			1	i	1		1
		1	!!		indicators and trame earthing			[
			1		contact, conforming to IS-13947-2							
•	i		l i		1993 as amended upto date		į i			!!		1
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		į]		required for ACB - 1 No.		1			l i		j
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			!!		Independent manual spring closing							As
`			1 1		mechanism-1 No.		ļ			. !		buildings
					Microprocessor release (EMI & EMC)							
	Î	1	1		certified) for over current, earth fault							hostels
		.										which ar
					and short circuit protection - 1 Set					1		fed are
												far from
					Analogue 96 mm square flush					ļ. — — — — i		
					pattern/Digital type voltmeter (0-500		i					Station
	;				Vally with telephone volumeter (0-500)					. 1		buildings
		1			Volt) with selector switch and back		1					to reduce
					up MCBs - 1 Set.							length o
					Analogue 96 mm square flush							cables.
					pattern/dig tal type Ammeter (0-1000)					j j		
	!				Amp) with selector switch and one							Feader
					mile) with selector switch and one			. '		!		provided
		,			set of 3 Nos. CTs of ratio 1000/5A							between
		i :			Class-i accuracy and 15 VA burden -							staions
The state of the s					1 Set.							
					Shunt trip coil 220 Volt AC.							buildings
					STORE THE COST 220 VOIL AC.							<u>L</u>

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		! [i I			_	1	٠.				cables.
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		1 .				Independent manual spring dosing						
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			Ť. — — [Microprocessor release (EMI & EMI)						between subj
			l į	ļ ļ		centifed) for over current, earth tach	1	i i	l			staions and
•		i .	!			and strong coccus protections - 7 Set.	l	!!	!			bušdingu/ :
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-						OUTGOING SYNTCHGEARS:	Ι	<u> </u>	Τ	íl		i
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		+	+-·i-	· · · ·		thermal magnetic release + 2 Ngc + 200 June 3 pole 415 Volle 35 Kr	l	÷∔				<u></u>
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		 		100 Arec 3 pole 318 Valls 25 KA					I
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		:		IMCCBsI	1 sal	346500 00	ធ	34550000	346500.00
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		į I .		complete with following accossories:				l i	i i
	<u> </u>			required for ACB - 1 No	!	l	l		l
		·		independent cranual spring desiring			!		
····· ·· · · · · · · · · · · · · · ·	j	! 4 .4		mochanism 1 No		<u> </u>		<u> </u>	buildings!
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		: ! !		1	i	i		. !	feet are too feer from Suit-
	⊢ −┌-	·		and short circuit protection - 1 Set. Analogue 96 trim sugges flush	-	⊢− −			
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	; ;	!		Volt and sector switch and back	7			ıl	to reduce the
	<u>;L</u>	i		up MCGs - 1 Set.				! !	length of LT
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		i		Amp) with selector switch and one	•				.pzovided In
	. :	i		eet of 3 Nos CTs of rate apaysa				i	between sub
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Sub-Head of estimate and		Original est		Sub-head of estimate and			vised estimate			Difference	Reason
Items of work	Qty.	Rate	Unit Co	st Items of work (REVISED)	Qty		Rate	Unit	Cost		
				4 strp aluminium bus bars of							
	1 1			minimum of 1000 Amps capacity							
		1		with heat shrinkable coloured		,					
				sleeves and including DMC/ SMC		1					
				bus bars supports at required					1		
				intervals complete for cross section,							
	1 1			size support & their spacing etc. for					l		·
	1 1			with standing fault level of 31 MVA					·		
				for 1 sec 1 Set							1
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1	1			OUTGOING SWITCHGEARS:							
	 			400 Amp 3 pole 415 Volts 50 KA							
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İ		İ		thermal magnetic release - 3 Nos		<u> </u>	ĺ				i
	.			200 Amp 3 pole 415 Volts 35 KA					1		
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	i l		-	thermal magnetic release - 3 Nos							
				(Note: Ics = 100% Icu for ali	-				1		
1	- 1			MCCBs)	1	set	328500.00	set	328500.00	328500.00	
+				I.I.GODO,		-	02000.00			,	1
				e) (Feeder Pillar No.2 of Sub							
		•		Station 3 near Guest House)	·						1
				(Approx. size of feeder pillar				1	 		
•				1.40mtr x 1.20mtr x 0.30mtr deep).					1		
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				Incoming:-		1					As
				200 Amp TP MCCB 35 KA breaking	-	-	<u> </u>		1		buildings/
				capacity with thermal magnetic							hostels
				release - 1 No.			}		1 1		which are
				Busbar:		 		 	 		fed are
<u> </u>			 	4 strip aluminium bus bars of	<u> </u>		ļ		-		far from S
						1			1		Station
				minimum of 300 Amps capacity with							buildings,
				heat shrinkable coloured sleeves and							to reduce
				including DMC/ SMC bus bars							length of
7				supports at required intervals							
				complete for cross section, size		1					cables,
				support & their spacing etc. for with		ì					Feeder p
					I						provided
				standing fault level of 31 MVA for 1							between
				sec 1 Set							staions
				OUTGOING SWITCHGEARS:							buildings/
				160 Amp 3 pole 415 Volts 35 KA							hostels to
1				breaking capacity MCCB with							fed.
				thermal magnetic release - 2 Nos							
				100 Amp 3 pole 415 Volts 25 KA							1
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				thermal magnetic release - 4 Nos				1			
				(Note: ics = 100% lcu for all				 	T		
				MCCBs)		}					

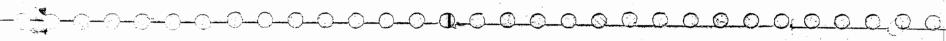
Recorp of work Dry. Rate Unit Coalitems of violet (REVISED) Dry. Rate Whit Coal Materials (State States Co.) Beatrants (States Coalitems Coalitems Co.) Soft VI, Australia Steven scause Coalitems (States Coalitems Coalitems Coalitems Coalitems Coalitems (States Coalitems Coalitems Coalitems Coalitems Coalitems Coalitems (States Coalitems Coalitems Coalitems Coalitems Coalitems Coalitems (States Coalitems Coalitems Coalitems Coalitems Coalitems Coalitems Coalitems (States Coalitems	Sub-Head of extimate ap-	d	Onlginal es	im a rs		Suh-Head of eathmate and		oriend acilmate			Dillerence	Heason
Materiary Statistics Companies of Analogue Betters	Rems of work				Cost		991	flate	Malt	Cost	i	
Compassing of Arracique Defining operations (Compassing of Arracique Defining operations) patients (the continues of Soft VI). Anatogue Section sequence (Lab position type Arrandor (2-500). A), Section welcome to rectimate a Arrandor (2-500). A), Section welcome to rectimate a Arrandor (2-500). A), Section welcome to rectimate a Arrandor (2-500). A), Section (2-50	·- 					Metering System:	· - T_					
Soft VJ, Austropia Grow expanse (Ash patter yee Ammater (2-300 A), Solector wisters to victimate a Ammater, subsite run, 2 Med CIA (or Ammeter, subsite run, 2 Med CIA (or Ammeter, subsite run, 2 Med CIA (or Ammeter, subsite run, 2 Med CIA (or Ammeter, subsite run, 2 Med CIA (or Ammeter, subsite run, 2 Med CIA (or Ammeter, subsite run, 2 Med CIA (or Ammeter, subsite run, 2 Med CIA (or Ammeter, subsite run, 2 Med CIA (or Ammeter, 2 Med CIA (or Ammet	· · · · · · · · · · · · · · · · · · ·	 -	··+ ·	T I		Companying of Ar-alogue Derman			Ī			
flush pattern type features for statistical (3-300) All, Sicketor weighee for visionalist & Ammara, suitable rating 5-Nos Cita for Ammelier, incatable patting 5-Nos Cita for Ammelier, incatable patting flushes for figures with patients or found flushes for figures with a flushes or found flushes for figures and flushes flushes flushes for figures also of locate patting flushes a flushes a flushes flushe	:	1		1 1		scene Bush pahani type volimeter (D		1	!			
flush pattern type features for statistical (3-300) All, Sicketor weighee for visionalist & Ammara, suitable rating 5-Nos Cita for Ammelier, incatable patting 5-Nos Cita for Ammelier, incatable patting flushes for figures with patients or found flushes for figures with a flushes or found flushes for figures and flushes flushes flushes for figures also of locate patting flushes a flushes a flushes flushe		: !		1 1		500 VI, Analogue 95mm square	· ·		!		i	
A), Scienter withings in withings is American and Ammonians, suitable project, suita	•	!	ı	!		flish settern type Ammeter (3-300)		1	i I		i	
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### afting all manufacture to the state of an information of 300 American capacity with a faithful profession of 300 American and an information for cross section, size supports at requirement information for cross section, size supports at their specing etc for with sanding fault lever of 31 havia for a sanding fault lever of 31 havia for a section of comparing capacity fault lever of 31 havia for a section of comparing capacity fault for a section of comparing capacity fault for a section of comparing capacity fault for a section of comparing capacity fault for a section of comparing capacity fault for a section of comparing capacity fault for a section of comparing capacity fault for a section of comparing capacity fault for a section of comparing capacity fault for a section of capacity fault for a section of capacity fault for a section of capacity fault for a section of capacity fault fault for a section of capacity fault		—— ∹ - —	– ј – ∙ – -	·⊦— ṛ ·			i —	+	\vdash	F·· - ·		too are too
Initificant of 300 Amps capacity with Sas shrivistic coloured status and Unquiding TMCV SAC bus boxs supports at requirem fractorist comprain for cross section, size support at their specing etc. for with sanding full even of 31 fWA for 1 sec = 1 Sat 1 OUTGORNG SIMTCHGEARS OUTGORNG SIMTCHGEARS Low There is not volt volts 25 AA breaking capacity MCCB with thermal regions to reticuse 6 Nos [Motor is = 1 Cot in for all MCCRs] Wistanting System: Confirming of Analogue Soruh square fush passing type volunteer (0 Act) A) Selector switches for voluntatio & Arthropite, busine rading 3 Nos CTS (A) Selector switches for voluntatio & Arthropite, busine rading 3 Nos CTS For Anamarie, busine rading 3 Nos CTS Services.		· — · — - · –	· +	! 	-· ——			+	\vdash —	·		Ser troop Sub-
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Supports at required Merketals comprain for order section, size support & their specing etc for with sampling fault level of 31 havis for 1 sec = 1 Sec		; ;	!	- 1				į.				
Emporat an inequality of cross section, size Bupport & their specing etc. for with sanging (suit lever of 31 hava for 1 sec - 1 Sec. OUTGOING SWITCHGEARS: 100 Amp 3 Dore at 5 Vota 25 AA breaking capably MCCB with thermal regregative returns 6 Nos [Mote: Ks = 100% in. for all MISCRES! Outgoing Of Analogue Softwill Softwill System: Congressing Of Analogue Softwill aguer of tion patient type withhelet No SOI VI, Analogue Botter systems Bash patient type Average (3-40) A), Selector switches for volenage & Arusanin, sursane rating 3 Nos CTS Sor Amandra, sursane rating 3 Nos CTS Sor Amandra, sursane rating 3 Nos CTS Sor Amandra, sursane rating 3 Nos CTS Sor Amandra, sursane rating 3 Nos CTS Sor Amandra, sursane rating 3 Nos CTS Sor Amandra, sursane rating 3 Nos CTS		i	1	:		uncounting DMC/ SMC bus bars	1 1	1		! į		to reduce the
Comprehe for drops section, size Bupport & their specing etc for with sanging (self lever of 31 few) for 1 sec = 1 Set. -QUYGORIES SWITCHGERRS: 100 Amp 3 Dole als Volta 25 AA breaking apparty MICCB with thermal regynetic returns 6 Nos (Mote: Ks = 160% int. for all MICCRs) Mistaring System: Comprend of Analogue Strupt square fusin pangin type voltinger to SSD V), Analogue Bother square, than pattern type Advancer (0-40) (A), Selector switches for voltangle & Ammaner, sursane rating 3 Nos CTs) for Ammaner, sursane rating 3 Nos CTs) for Ammaner, sursane rating 3 Nos CTs)			•	1 1		supports #1 required Intervals	!	1		. 1		Hergilh of LT
Bupport & their specing etc. for with page sanging (suit lever of 31 have for 1 per		! i		l i		comptake for cross section, size] !	1	!			caldes. Constant a Mar
Sanging fault lever of 31 have for 1 sec = 1.5c; OUTGORDS SWTCHGEARS: 100 Amp 3 boys 415 Vots 25 KA breaking capably MICCS tells Unammal regression returns 6 Nos (Note: ks = 100% ict. for all MICCRS! Middling System: Confirming of Amalogus Shrut Story V), Amalogus Shrut Story V), Amalogus Boron square Bun péttem type American (0-400) A), Selector switches for votendate 5, Ammater, sursume rating 3 Nos CTS Story Amanater, undicatoral larges Sory		' i				-	1 i	1	1			Feeder (##a)
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Too Amp 3 pay 416 Votes 25 KA breaking capably MOCB with thermal regyrectoretizate 6 Nos (Note: ks = 100% in. for all MOCRs) MOCRs) MOCRs) MOCRs) Moderning System: Continuency of Analogue 96 mm Square fush pagent type volunteer (0 500 V), Analogue 96 mm square Major pagent Major page		-·· · 	· · ·-				 	!		·		simons and
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Reads of work	Qty.	Rata	UEIT	terns of work (REVISED)	Qh	·	'R#A	Linet	Cont		
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;			1	Inermal release type ATCCB's in		l					'
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	:		1	caples complete cornections,		l		:	:		rusted and
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•	i !		1	Spectra EZ)		No.	- 37444 <i>0</i> 0		أمميمهما	574 65	ı !
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		!	1 :	tromos estess type MCCB's in		l			! ;		
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1			1 1	though the energy sized enclosing this		į į			I		
	i .		1 1	well with feathers including providing		:					
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			r	 61 250 Amp 3 Pole 50 KA		lbuo		— ·l			
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	Sub-Head of estimate and			Original est			Sub-Head of estimate and			vised estimate			Difference	Reason
	Items of work	Qty.		Rate	Unit	Cost	Items of work (REVISED)	Qty		Rate	Unit	Cost		
											· .			
							Supplying and fixing following rating		1 1					Required to
							thermal release type MCCB's in		i I					be provded
			1				cubical type sheet steel enclosure of					Į.		at load ends
			1				size 500mm x 350mm x 210mm					ĺ		as existing
		1	ĺ				made out of 2mm thick CRCA sheet,		1					panel boards
			ļ		l i		duly powder coated, making		;					are very cid,
		j	- 1	•			arrangement for fixing of MCCB,					1		rusted and
		1	ĺ				fixing the sheet steel enclosure on							un-safe.
		1	-				wall with fastners including providing							
		1			1		incoming and outgoing termina's					.		
			1		1		solid aluminium busbar strips as per							ľ
		1	.		1 1		rating of MCCBs including gland							
,		1	-		l i		plate for incoming and outgoing					1		
							cables complete, connections,					1		1.
							testing etc. as required.							
							a) 160 Amp 4 Pole 35 KA	1	No.	12608.00	each	12608.00	12608.00	
									1.					
	·						b) 100 Amp 4 Pole 35 KA	17	Nos	9310.00	each	158270.00	158270.00	- do
									T					
							c) 63 Amp 4 Pole 35 KA	2	Nos	9310.00	each	18620.00	18620.00	qo ,
									,					
	TOTAL OF SUB HEAD-VII					199015.00						2992967.00	2793952.00	
									1					
	SUB HEAD - VIII (EARTHING)								1.					
														· · · · · · · · · · · · · · · · · · ·
1	EARCUPL				'		EARCUPL		 					,
	Copper earth plate electrode:						Copper earth plate electrode:							
	Earthing with copper earth plate 600						Earthing with copper earth plate 600		 					Copper
	mm x 600 x 3 mm thick including			'	1 .		mm x 600 x 3 mm thick including		1			1		earthing
	accessories and providing masonary													done only for
					. 1		accessories and providing masonary			i .		i ·		3 Nos Sub-
	enclosure with cover plate having		- 1		1		enclosure with cover plate having					1		Station
	locking arrangement and watering	j			1 1		locking arrangement and watering		i .	ŀ]		buildings and
	pipe etc. (but without charcoal or	ì					pipe etc. (but without charcoal or							for One No.
	coke and salt) as required.	66	sets	3263.00	set		coke and salt) as required.	24	sets	8500.00	set	204000.00	44250.00	
							same anny as required.		3013	8500.00	361	204000.00	-11358.00	-
2	Extra for using salt and coke for G.I.						Extra for using salt and coke for G.I.					 		panel room
	or copper plate earth electrode as	- 1					or copper plate earth electrode as		İ			1		only.
	required	66	sets	603.00	set	39798.00	required	70	coto	700.00		40000 00		
								10	sets	700.00	set	49000.00	9202.00	
3	EARGIWRPIP						EARGIWRPIP							
	P/F 6 SWG G! earth wire in pipe:						P/F 6 SWG GI earth wire in pipe:							
	Providing and laying earth													
	connection from earth electrode with	İ										1.5		As per acutal
	6 SWG dia G.I wire in 15mm dia GI		1				connection from earth electrode with	•						site
	pipe from earth electrode as	İ					6 SWG dia G.I wire in 15mm dia GI						٠.	requirement.
	required.	104		494.00	metre		pipe from earth electrode as							
							required.		mtrs	140.00				



Sub-Head of estimate and Items of work				Original es	timates		Sub-Head of estimate and		Re	vised estimat	tes		Difference	Reason	
Items	of work	Qty.	ļ	Rate '	Unit	Cost	Items of work (REVISED)	Qty		Rate	Unit	Cost			
EARC	USTSUR		 	·	1		EARCUSTSUR		ļ						
	5mm x 5mm copper earth strip		 -	 			P/F 25mm x 5mm copper earth strip		 			ļ		<u> </u>	
	face/ recess:						in surface/ recess:							Copper strip	
	ding and fixing 25 mm x 5 mm		 		 		Providing and fixing 25 mm x 5 mm			ļ	+			provided for	
	r strip on surface or in recess		İ		1		copper strip on surface or in recess			ļ	1			earthing of	
	nnections etc. as required.	260	mtrs	358.00	metre	93080.00	for connections etc. as required.		mars	750.00	metre	262500.00	169420.00	,	
	- 1	-					Providing and fixing 25 mm X 5 mm		11103	730.09	mene	202000.00	109420.00	Transformer	
1			1				copper strip in 40 mm dia G.I. pipe		1	į			ŀ	s and	
1			ļ				from earth electrode including		Ì	į				capacitor	
į			Ì.				connection with brass nut, bolt,				1			panels etc	
•			1	1	1		spring, washer excavation and re-					1		as per actua	
 -				<u> </u>	1		filling etc. as required.	250	mirs	1000.00	metre	250000.00	250000.00		
EARB			L				EARBUS				1	-		i	
	25mm x 5mm earth bus on		İ				P/F 25mm x 5mm earth bus on		T		†	<u> </u>			
surfac			<u> </u>				surface:					1. 1		ļ. ·	
	ling and fixing earth bus of		Ì				Providing and fixing earth bus of							Not required	
	x 5mm copper strip on e for connections etc. as		1.				50mm x 5mm copper strip on				1	1	.]	as per site	
requin		360	İ	205.00			surface for connections etc. as					1		requirement.	
requiit	<u>au.</u>	300	set	665.00	metre	239400.00	required.				-	0.00	-239400.00	,	
Provid	ling and fixing 6 SWG dia G.I		 		 		Devide and Co. O Divide		į			(-		
wire o	n surface or in recess for loop						Providing and fixing 6 SWG dia G.I							As per acuta	
earthir	ng along with existing surface/						wire on surface or in recess for loop earthing along with existing surface/		1	1				requirement	
recess	sed conduit/ submain wiring/						recessed conduit/ submain wining/			1			1	at site.	
	as required.	6000	mtrs	11.00	metre	66000 00	cable as required	00000					İ		
,				1			Earthing with G.I. earth plate 600	28000	mirs	20.00	metre	560000.00	494000.00		
1	Ì					-	mm X 600 mm X 6 mm thick	-J	1					Gl plate	
1	1						inelusing accessed to mm thick		1	1				earthing	
Ę	!						including accessories, and providing	-			1			done for	
1	, [masonry enclosure with cover plate				;			existing	
							having locking arrangement and		. 1			1		buildings/	
:	ł											1 1			
				ĺ	·		watering pipe of 2.7 metre long etc.			l				hostels	
:	į				1		watering pipe of 2.7 metre long etc. (but without charcoal/ coke and salt.)					and the page		hostels	
·						·	watering pipe of 2.7 metre long etc. (but without charcoal/ coke and salt.) as required.	46	ses	3300.00	sat:	151900.00	-		
							(but without charcoal/ coke and salt) as required.	46	ses	3300.00	set	151800.00			
							(but without charcoal/ coke and salt) as required.	46	ses	3300.00	set	151800.00	151800.00		
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					and the state of t		(but without charcoal/ coke and salt) as required. Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including	46	ses	3300.00	set	151800.00	151800.00	GI pipe earthing	
							(but without charcoal/ coke and salt) as required. Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry.	46	ses	3300.00	set	151800.00	151800.00	GI pipe earthing done for	
					The state of the s		(but without charcoal/ coke and salt) as required. Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having	46	ses	3300.00	set	151800.00	151800.00	GI pipe earthing done for existing	
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	Sub-Head of estimate and			Original est	imates		Sub-Head of estimate and			vised estimate			Difference	Reason
	tems of work	Qty.		Rate	Unit	Cost	Items of work (REVISED)	Qty		Rate	Unit	Cost	·	
	items of work													
)							Providing and fixing earth bus of 50 mm X 10 mm copper strip on surface		,	·				Provided i the Sub Stations a
							for connections etc. as required.	20	mtrs	2400.00	metre	48000.00	48000.00	main ear bus.
							. 1							
	TOTAL OF SUB HEAD - VIII					705012.00						1893300.00	1188288.00	
_	SUB HEAD - IX (SAFETY EQUIPMENT)												•	1 .
	Supplying and erection of the following equipment at suitable place in the sub-station building as required.					-	Supplying and erection of the following equipment at suitable place in the sub-station building as required.							
}	Set of 4 Nos 9.5 Litre capacity GI bucket painted in post office red colour with pnor coat of red-oxide paint and written with white paint						Set of 4 Nos 9.5 Litre capacity GI bucket painted in post office red colour with prior coat of red-oxide paint and written with white paint							As per acturequirement at site.
	FIRE and mounted on MS angle iron frame with bracket of appropriate size & capacity including						FIRE and mounted on MS angle iron frame with bracket of appropriate size & capacity including							
	filling sand etc.	3	sets	1200.00	set	3600.00	filling sanu etc.	4	sets	300.00	set	12000.00	8400.00	
)	First aid box as approved by St. John Ambulance Brigade/ Indian Red Cross society confirming to IS: 2217						First aid box as approved by St. John Ambulance Brigade/ Indian Red Cross society confirming to IS: 2217							
	1963	1	No.	300.00	each	300.00			No.	500.00	each	2000.00	1700.00	do
)	Shock treatment chart duly mounted on a wooden frame with glass on, as required in 2 languages (Hindi &			-			Shock treatment chart duly mounted on a wooden frame with glass on, as required in 2 languages (Hindi &						······································	
	English)	1	No.	150.00	each	150.00	English)		No.	500.00	each	2000.00	1850.00	- do
)	Rubber Mat 914.4 mm wide and 12 mm thick checkered rubber mat to withstand 11 KV dielectric strength confirming to IS:5424 - 1969						Rubber Mat 914.4 mm wide and 12 mm thick checkered rubber mat to withstand 11 KV dielectric strength							SMC she flooring is be provid
	complete as required.	3	поѕ	1468.00	each	4404.00	confirming to IS:5424 - 1969 complete as required.				-	0.00	-4404.00	in place rubber mat
)	Rubber mat 914.4 mm wide and 6 mm thick to withsand 15 KV dielectric strength.	۵	nos	1201.00	each	10800.00	Rubber mat 914.4 mm wide and 6 mm thick to withsand 15 KV dielectric strength.					0.50	-10809.00	
				1201.00	Gacii	10009.00	dielectric strength.	-		-	<u> </u>	0.00	-10809.00	
	Providing 1: KV tested Hand & GLOVES	3	nos	150.00	each	450.00	Providing 11 KV tested Hand & GLOVES		nos	200.00	each	800.00	350.00	As per act



Sub-Head of catimum and		Original es	liniataa		Sub-idead of estimate and	т—	Bus	nau estimate			Dätlarenca	Reason
literas of work	Osy. I	Rete	Unit		tiems of work (REVISED)	άnγi	1	Rate	ia Unit	Cost	CONTRIGUENCE:	
1.2 Suspey Him; song of Carrion Distracts fire (CCC) type fits subjectivets of 4.5 Kg each mounted on high health confirming 15 kS 2670 + 1976 and replaces fluiry changed of following	8 Apra	2261.00	4200	13566.00	Supply and fluing of Carthon Exceptor Site (COZ) type fire exanguishing of 4.5 Kg each mounted on wall nocks confirming to 15 267e - 1675 and cylinders fully charged of following		Inos	500006	euct.	36030.00	16434,00	:_:
1.3 (Siggly and hang of Dry chemical ling leadings, listers), Si Kg. capacity nangen on well with bracket compete as required	5_006	Z281.00	caco .		Supply and fixing of City (herbits) fre distinguishers, S. Kg. (Spacely hanged on healt with bracket complete as regulated.		waii	109300	each	8000.00	-7589.00	
9 Swiping and trang danger played maco of med sides at least 2mm from 6 vorcous enameliag white outputs a sides & with inscriptions and signal red required from from side as 1990/red. a. Kigh Voltage size 250mm x					Providing and fixing changer plates proper of mild sage at least 2 mm thick 6 vit cous channellag white or both sides A with inscriptions in signal red colour on front side as legithed.	 !		- ·				
: -200mm	. <u>6 nce</u>	i 75.00	eect:		a) High Voltage size 250mm x 200mm		nos	150,00	each	900,00	450.00	_
b) Meguin Votage size 200mio x 1450min	 9!ras		isacu	512.00	aj Medium Voltage size 200mm z Sgryn Providing end issag 2.5mm SMC		nos /	100.80	#4¢h	802,00		AC snea:
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Stem No. 16.5 To consider & approve the Ravised Cost Estimate for construction of Convocation Hall (3000 capacity) at NIT, Kurukahetra.

The above mentioned work was approved in the 8th meeting of B & WC vide Agenda Item No.8.9 held on dated 28.05.2007 for an amount of Rs.550,00 lacs. The work could not be under-taken due to non-allocation of funds. Subsequently Chief Engineer, CPWD has now submitted a revised cost estimate for the above work for an amount of Rs. 6800.00 lacs.

The B & WC may consider and approve the revised cost estimate for the above cited work for an amount of Rs. 6800.00 lacs

GOVT. OF INDIA
CENTRAL PUBLIC WORKS DEPARTMENT
O/O THE CHIEF ENGINEER (NZ-I)
KENDRIYA SADAN, SECTOR-9A

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0172-2743914

CHANDIGARH Dated: /4/12/11 No.: 23(390)/SE (P)/EE(P)II/ 3504 To Director's Office | 6 | 12 | 20 | 1 | Received on Pr. The Director, National Institute of Technology, NIT, KURUKSHETRA. Kurukshetra. Sub: Rough Cost Estimate of proposed Convocation Hall of 3000 capacity at NIT, N.I.T. KURUKSHETRA Kurukshetra. Dy. No. \$ 0.5.9.... Date. 1.9 Ref.: Your office letter No. CC/1533/5788 dated 30.9.2011. Sir, Kindly refer to your above cited letter vide which requisition for various works has been forwarded to Executive Engineer, Karnal Central Division, CPWD, Karnal In this regard a Rough Cost Estimate for 3000 capacity has been prepared and forwarded to you for obtaining the approval of Building & Works Committee. for 68 cmms It would not be out of place to mention that the formal Preliminary Estimate shall be prepared on approval of the Arch. Drawings and freezing of various requirements in due course. dampen (ECGEM) Encl.: As above. **(3)** Yours faithfully (Nand Lal Chauhan) Superintending Engineer (P) 0 Copy to: 1. The Superintending Engineer, Chandigarh Central Circle, CPWD, Chandigarh 0 for information w.r.t. his letter No. CCC/23(4515/W-3/206 dated 13.12.2011. 2. The Superintending Engineer (E), Chandigarh Central Elect. Circle-I, CPWD, Chandigarh. \bigcirc 3. The Executive Engineer, Karnal Central Division, CPWD, Karnal. 4. The Executive Engineer, Karnal Central Elect. Division, CPWD, Karnal. By Mc (ERC)/PN Nofem 21/12/11
/EXEX Superintending Engineer (P)

Rough cost of proposed convocation hall of 3000 capacity at NIT, Kuruksheta

The requisition of the subject work has been received from NIT, Kurukshetra vide letter No. CC/1533/5788 Dt. 30.9.2011 wherein it has been desired to obtain rough cost estimate for according in-Principle approval of client deptt. Accordingly, the rough estimate showing rough cost of the project has been prepared.

Following provisions are projected for the present scheme:

(A) Scope of Work:-

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- 1. Basement for car & scooter parking plus services.
- 2. Auditorium of 3000 capacity.
- 3. Seminar hall of 500 persons capacity.
- 4. Two Nos. conference hall of 150 each capacity.
- 5. Exhibition gallery.
- 6. Cafeteria
- 7. Green room
- 8. Workshop rooms
- 9. Lifts (2 Nos.) 13 persons capacity each.
- 10. Staircase
- 11. Fire fighting such as sprinkler system, wet risers and fire extinguishers.
- 12. Surface parking
- 13. Central Air Conditioning.
- 14. Furniture, accessories etc.
- 15. Projection and Sound System for Seminar Hall and Conference Rooms.
- 16. Stage Lighting, Projection System, Motorized curtains for Main Hall.
- 17. EPBAX/LAN.
- 18. Ventilation System for Basement.

Contro P-2

Grand Total	=₹ 68,33,72,302.00
Add: 4% VAT	=₹ 65,70,88,752.00 =₹ 2,62,83,550.00
Add: 1% Cess	=₹65,05,82,923.00 =₹ 65,05,829.00
Conference hall, Air conditioning, sub station, D.G. sets etc.as per Annex-B attached	=₹13,98,00,000.00
Add for acoustics, chairs, tables for	=₹51,07,82,923.00
Add: 3% Contingencies	=₹49,59,05,750.00 =₹ 1,48,77,173.00
Add: 37% Cost Index	=₹36,19,75,000.00 =₹13,39,30,750.00
Add for :- Services & development work as per Annexure A attached.	=₹. 8,12,05,000.00
Automatic Fire alarm system – 15000 @ ₹ 300	=₹. 45,00,000.00 ==₹28,07,70,000.00
Fire lighting – including Wet riser and Sprinkler system 15000@₹ 750(300+450)	=₹.1,12,50,000.00
Mostic W.P.T. – 3000 @ ₹ 1140/-	=₹. 34,20,000.00
Larger module – 15000 @ ₹ 990/-	=₹.1,48,50,000.00
Strong structural member = 15000@ ₹ 850/-	-₹.1,27,50,000.00
Resisting Earthquake forces 15000 @ ₹ 630/-	=₹. 94,50,000.00
Area = 15000 x 3= 45000 @ ₹ 150/-	=₹. 67,50,000.00
Extra height = $\frac{0.65}{0.30}$ = 2.16	
Costing based on PAR – 2007 R.C.C. frame structure =15000 sqm @ ₹.13,200/-	=₹. 21,78,00,000.0
	= 15000 so
Therefore built up area for 3000 person is 1000	70 A 3000

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ABSTRACT OF COST-ORIGINAL ESTIMATE

[Refer Para, 4-23 and CRWD Code Para, No. 87].

State Haryana. Division Karnal Central Division Beanch Civil Sub-division | Karnal Central Sub-Construction of convecation half of 1600 capacity at NIT. Knrukshevia Name of Work : Perr. No. Sub-heads and item of work Oly Pee Amount To:al Rs. P. Rs P. SHOUSER VICES μ١ Internal water supply & sanitary installigions (Office) College): 204750000 Bloost 4 80 100 Blagst 8 190 OHO,DIE 3 c 1.2 External services connections. 204750000 Bicost 180 S.cost 5.00 10/237/500:00:32 Internal electric installations, (Non-rest, Bldg) 13 204750IXID Bloost 12.5IF 100 Bloost زرر (25 393 750,00 رو Extra for : 141 Power wiring & plugs 204750000E-Bicost 100 B.cog 1.00 8 190 000,000 16 (Central call belt system 1.9.2 204750000 Bloost 1.00 108 B enst 2 047 300 00 13 47 1.4.) Lighting conductors 1.4.7.1 Upto 4 storeyed buildings 204730000 R cost D.54I 100 Blanst 1023 750.00 1651 1.44 Telephone conduits 204750000 B.oust 41.50 100 B.cos: 14923-750-00 364 1.4.5 Computer conduiting 204750000 Bloom 0.50100 Bloost 1 023 750.00 166 1.4 6 Chality Assurance 204750000 Blanst 03.0 100 Bloost 2047 500 00 357 1.4 7 Additor Green Building %) 5% 204750000 Blacks 5.00 HID Bucost 10 237 50HHID | MR IIem Sub Total 69.615.000.00 SH 2 LIFTS 2.1 PASSENGER LICES Passenger hit. Capacity, 13 persons, 834 Kg. Speed 1.00mtr. 21.1 Sec., Travel G14. Power operated Joors, A C.V.V. control. 1.900 O(0.00 Lach 3 800 000.00 Julia Sub**l**otal 7 800 000.00 St. 3. WATER TANKSTRUCTUREYE 11 Over head this upto staging beight 20 metres 100000 lorg 15.28 h:r: 1,529,090,00 (kg)

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vC.	from No	Sub-heads and tient of work		Qiy	Rale	Per	Ameunt Total
	3.2	Underground sump	200 n a() litre	R ₅ p. 9.1Ki	litr a	Rs. P. 1800-000-00-55
		<u>SubTot</u> al SH • DE <u>VESIOPMENT OF SETT</u>					1 120 000,00
	4.1	Levelling	316000	Sq. mir	55.00		CEO 0011 00
	4.2	Internal roads & path;				9q. TI JE	550 000.00 bi
	4.3	Sewer	TOTAL	FQ Mitr.	8160	sq.inlr	8,30 000,00 6.2
	4.4	Water Supply	10050	SQ.MHr.	63.00	ŝų. Intr	630 090 0U 63
	44.1	Filtered water supply distribution lines 100mm d					
	4.4 }	Perinteral grid #50mm to 340mm dia pipes	10000	ष्य भए.	46.00	sy.mtr.	450 000 OB A41
	4.1	Sterin wilter drains	10000	sq.mtr,	33.00	sq.ottr	J54 000,00 54 2
	4 6		112900	sq.mir.	\$0.00	S û , mir	500 000,00 ms
	7.11	Horticulture Operations	10000	sq mti.	47.40	Signatur -	470 000 00 00
		<u> </u>					3.790, 000.00
		Grand Fotal					1,205,000.00

Executive Engineer Kanisi Central Division CPWD, Kamal

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Annexure -A is attached with other file in this mail.

Annexure-B

Extra Provision:-

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Chairs 3000 + 500 + 300 = 3800 Nos. @ ₹5000/- each =₹ 1,90,00,000.00

Acoustics L.S. : 1 job =₹ 50,00,000.00

A) Tables for two conference Halls =₹. 10,00,000.00

B) P A Systems

- 1. 2 No's for conference Halls and 1 No
 for Seminar Hall, 1 No for Main Hall =₹ 75,00,000.00
- 2. Projection System for the 2 Nos Conference
 Hall, I No Seminar Hall and 1 Nos for
 Main Hall
 =₹ 50,00,000.00
- 3. CCTV & EPABX System for Building =₹ 60,00,000.00
 4. Motorized Curtain, Stage Lighting for Main Hall =₹ 75,00,000.00
- c) HVAC say 15000sqm to be covered

 Basement say 2500sqmt.

 Rest 15000-2500=12500Sqm

 65% of 12500=8125 Sqmt.

Costing for HVAC =
$$\frac{8125\text{Sqm}}{20}$$
 = 406.25 TR

Say 2 x 225 TR + 1x225 TR Standby

HVAC – For A/C

450 TR x 78000 =₹ 3,51,00,000.00

O				2000 2540	_	
Q	-	Mech	nanical Ventilation	2000 x 2500	- ₹	50,00,000.00
0				Total for HVAC:	-₹	4, <u>91,00,000.00</u>
O						
0						
0		(D)	S/S Equipments:-			
0			2 x 1000 KVA S/S wit	h HT, LT Panels, APFC		
0			Panels, Cabling etc.		=₹ 1	,12,00,000.00
0						
0		(E)	Security & Compound	Lighting with Solar Power		
0			Plants, Exit signages.		-₹ [,50,00,000.00
٥						
٥		(F)	Water supply Pumps w	ith Level indicator	=₹	10,00.000.00
0						
0		(G)	D. G. Sets for standby	Power Supply 2 x 500KVA		
Ø			With AMF/ATS panels		=₹ 1	,25,00,000.00
•				n=	•••	
0			Т	otal:	=₹13	.98,00.000.00
0			•			

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Item No. 10.0

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construction of Community Hall at NIT, Kurukshetra.

The above mentioned work was approved in the 1st meeting of B & WC vide Agenda Item No.1.9 held on dated 08.11.2002 for an amount of Rs.64.15 lacs. The work could not be under-taken due to non-allocation of funds. Subsequently Chief Engineer, CPWD has now submitted a revised cost estimate for the above work for an amount of Rs. 715.32 lacs.

The B & WC may consider and approve the revised cost estimate for the above cited work for an amount of Rs. 715.32 lacs.

KENDRIYA SADAN, SECTUR-9A, CHANDIGARH

STATE: Haryana

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DIVISION: KCD

BRANCH: B&R

Name of work: C/o Community hall at NIT Campus, Kurukshetra.

Major Head:

Minor Head:

Detailed Head:

This preliminary Estimate framed by Er. Igbal Singh, Executive Engineer, Karual Central Division, CPWD, Karnal and processed by Er. Tejinder Kumar, Executive Engineer (P)II, O/o Chief Engineer (NZ-1), CPWD, Chandigarh for the probable cost of Rs. 7.15.31.600/- including 3% contingencies.

REPORT

HISTORY: This preliminary estimate amounting to Rs. 7,15,31,600/- including 3% contingencies has been framed to cover up the probable cost of above mentioned work for accord of A/A & E/S of the competent authority. The requisition of the above said work has been received from client department vide letter No. CC/219/6899 dated 08.10.2012. The preliminary estimate for C/o Community hall & Gymnasium hall was sent vide SE/CCC letter No. CCC/23(4515)/N-3/3427 dated 24.11.2011 amounting to Rs. 5,67.85,5000/- to client deptt. for A/A & E/S. But they have desired that estimate of community hall is to be proposed separately. Accordingly this estimate has been prepared by deleting the provision of gymnasium hall in early approved drawing of community hall and gymnasium hall.

DESIGN & SCOPE: -This estimate is based on Architectural drawing received vide No. SA(NZ)1/ 366/3247 dated 11.11.2011 (excluding multipurpose hall) as below:

Following provisions has been made in the estimate:-

1. RCC framed structure with isolated footing

2. Extra for earth resisting earthquake forces:

3. Internal water supply, sanitary and electrical installations i/c external service connection.

4. Provision for development of site for 8000 sqm area has been taken.

5. Provision for Main LT Panel, essential panel, HT cabling, LT cabling, earthing & safety equipments. Air conditioning with VRV air conditioning system & room with spilt Acs. EPABX system, DG set with AMF panel 250 KVA silent type & N1 No. standby. Stage lighting. PA system etc. have also been taken in this estimate.

SPECIFICATIONS:

As per CPWD Specifications 2009 Vol. I to II with upto date correction

slips.

RATES:

By contract after call of tender.

COST:

Rs. 7,15,31,600/- i/c 3% contingencies

W.C. Estt:

Shall be met out of contingencies.

T&P:

All T&P shall be arranged by the contractor.

METHOD:

Based on PAR-2007 (Re-print 2010) and market rates.

LAND:

Available with the client department.

TIME:

After receipt of A/A & E/S

Pre-construction period: (i)

04 Months.

(ii)

Post construction period:

12 months

16 Months

Assistant Engineer (P) CPWD, Chandigarh

Ave Engineer(P)[] CPWD, Chandigarh

Namo	e of Work:- C/o Commun	ity hall at NIT Campu	s, Kurukshetra.]	
S. No.	Descripation of Item	Civil	Electical	Total Amount	Remarks
1	Community Hall	45,167,947.00	22,257,436.00	67,425,383.00	As per Annexure A - E
		45,167,947.00	22,257,436.00	57,425,383.00	(C)
*********	Add 2% VATT	903,359.00	445,149.00	1,348,508.00	<u></u>
	 	46,071,306.00	22,702,585.00		
	Add 1% labour cess on (C)	451,679,00	222,574.00		
****	white was a second and the second	46,522,985.00	22,925,159.00		1987 33-3177-11 (*#18883- 4 1-4 1 begin eret _e † 11 11-1-, 1- 11
	Add 3% contingencies.	1,395,690.00	687,755.00		
	A STATE OF THE STA			71,531,589.00	
			Say Rs.	71,531,600.00	
	Tay 30	O.			
	3	1211		727	Commission of the Commission o
	tant Engineer (P)	Executive Engineer (P)(I	Superintending Eng	gineer(P)
PWI	D, Chandigarh	CPWD, Chandigarh		CPWD, Chandigarh	
	minary Estimate amounting Six Hundred Only) submitte				y One Thousan

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ABSTRACT OF COST GH:- Civil Work.

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S.No.	Description of Item	ପ୍ଲାy	Rate	<u>Un</u> it	Amount	Remarks
ı	R.C.C. framed Structure	 	ŀ <u></u>		}	
1	R.C.C. framed structure upto six storeys.		††		· · · !	
1.1	Floor height 3.35mtr. (Office/ College/	1440.00	13200.00	Sqrii	19008000.00	1.1,1
,	Hospital)	1445,00	;	adın	i 1800800.00	'
	Extra height	Ŀ. <u></u>	i		+·i	_ 19836000,00
1.2	Floor height 3.35mtr.(Office/ College/	1440.00	575.00	sqm	828000.00	
ı	Hospital)		ı		l ī	1.2.3
	Extra height					
ı	4 50-3.35=1 19		Ι ,		i i	
•	150°1.15/0.30= <u>\$</u> 75	i		—· ·	·	
,	Extra for			- ·	-}· 	—
.2	Every 0.3mtr. deeper foundations over	1440.00	150.00	sqm	216000.00	1.2.5
	normal depth of 1,20mtr. (on Ground Floor			·	i	
•	area only)		:		;	
3	Reasting earth quake forces.	1440.00	630 00	ຮຸດກາ	907200.00	1.2.8
	Services				-;	
1	Internal water supply & sanitary installations	19836000.00	4.00	%	793440.00	3 1
٠	on (A)	4002000000			<u>:</u>	
9 5 6	External services on (A) Ouality Assustance on (A)	19836000.00	3.75 1.00	% .	743850 00	3.2
) ř –	Green building concept (GRIHA)	19636000.00	10.00	%	198360 00 1983600 00	3. <u>6.7</u>
- 3	Overhead lank without independent staging	54000.00	9.00 +		1 485000,00	
•	:: · · · ·		· · · · · ·		+]
	Development of site	— —			<u></u>	
)	Leveling	8000.00	55.00	sqm	440000.00	- 61
10	Internal road & paths	8000.00	B3.00	_sqm	684000.00	6.2
1	Sewer !	8000 00	63,00	edw	504000.00	ß.3
12	Water supply	<u></u>	· <u></u> · ·			6.4
))	Filtured water supply distribution lines	BQ0Q.QQ	46,00	sam	368000.00	6.4,
12.2	100mm dia & helow Unfiltered water supply distribution lines	8000 00	27.00	e. Rore	216000.00	<u> </u>
) 13 ·	Storm water drains	6000.00	50.00	sg <u>m</u> som	400000.00	6 4.3 F 5
	Horticulture Operations	00.0008	47.00	som.	376000.00	6.8
) 13	Add for rain harvesting		i	LS.	1606000 00	<u>~~~</u> !
		:	i		29132450.00	
)	And cost index @ 57% exception item No.				16035497 00	· · · i
)	15	!	. '		<u></u>	
		!-			45167947.00	ŀ
)	.1 i					
•	ر-چا Assistant Engineer(P)	·			्रि≭ecutive Engine	ar(PN)
	CPWD, Chandigarh	:			<u>,CP</u> WD, Chandigar	

¥	Af	ostract of cos	st		'	·
			T		í	
	work : C/o Community hall at NIT Camp trical Work.	jus, Noruksn	e(ra,			
		·	7	! ·		Ţ
5r. No .	Description	Qty.	Unit	Rate	Amount	Remark
1	Building work				-—	
1.1	Internal electrical installation on (A)	 1983 6 000.00): %	12.50%	247 9 500	·! : 3.3
12	External services on (A)	19836000 00		1 25%		3.2
1.2	Extra for: Power wiring plug on (A)	19836000.00	9%	4.00%	793440	3 6.1
13	Telephone conduit on (A)	19836000.00	9%	0.50%	99160	3.6,4
14	Lighting conductor on (A)	19836000.00		0.50%	++-	3.6 3
1.6 1.6	Call bell system on (A) Floor distribution panel with necessary	19836000.00		1.00%	198360 297540	3.G.2·
1,7	connections on (A) Special energy efficient lighting fixtures on (A)	19836000.00	%	1.50%	297540	<u> </u>
1.8	Computer cabling (A)	19836000.00	, %·	0.50%	99180	3.6.6
	Fire fighting system & fire alarm system				· ·	
				<u></u>		:
1.9	Fire fighting system, with sprinkfor system.	1440	sqm	450.00	648000	2.9.2
1.10	Fire alarm system Automatic fire alarm system for	1440	· sam	300.00	432000	1.5.2
1.10	entire building					
1.11	Compound lighting, street light with HP\$V lamp control panel with timer controls	8000	sqm	95 QQ	760000	6.7.3
3.2	Exit sign board & electric signage	8000	sqm	50.00	400000	6.7.4
	Add cost index @57%	<u></u>		‡	6851870 3905566 10757436	
2	Bulk services	i				[
2.1	Main I.T Panet essential panel, HT cabling LT cabling, earthing & safety equipments	1	јоb :	1000000 00	10000000	MR .

21. 1 V(),	Description	Ųtγ.	Unit	Rate	Amount	Remarks
2.2	Air conditioning with VRV air conditioning system & room with spill Acs		iob	6000000.00	6000000	MR
2.3	EPABX system	1	<u>i</u> jjo b	400000.00	400000	MR
24	DG sot with AMF panel 250 KVA silent type & N1 No. standby	ř	set	2 <u>10000</u> 0.00	2100000	MR
2.5	Stage lighting		job	1000000.00	1000000	 MR
2.6	PA system		job	1000000.00	1000000 22257436	MR
	·			 <u> </u>	·	
			<u> </u>	<u>-</u> 	···	
	Assistant Engineer(P) CPWD, Chandigarh		:		Executive Engineer	

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() () construction of Gymnasium/Badminton Hall at NIT,
Kurukshetra.

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The above mentioned work was approved in the 6th meeting of B & WC vide Agenda Item No.6.11 held on dated 24.04.2006 for an amount of Rs.40.02 lacs. The work could not be under-taken due to non-allocation of funds. Subsequently Chief Engineer, CPWD has now submitted a revised cost estimate for the above work for an amount of Rs. 532.88 lacs.

The B & WC may consider and approve the revised cost estimate for the above cited work for an amount of Rs. 532.88 lacs.

KENDRIYA SADAN, SECTOR-9A, CHANDIGARH

STATE: Haryana

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DIVISION: KCD

BRANCH: B&R

Name of work: C/o Badminton hall in NIT Campus, Kurukshetra.

Major Head:

Minor Head:

Detailed Head:

This preliminary Estimate framed by Er. Iqbal Singh, Executive Engineer, Karnal Central Division, CPWD, Karnal and processed by Er. Tejinder Kumar, Executive Engineer (P)II. O/o Chief Engineer (NZ-I), CPWD, Chandigarh for the probable cost of Rs. 5,32,88,000/- including 3% contingencies.

REPORT

HISTORY: This preliminary estimate amounting to Rs. 5,32,88,000/- including 3% contingencies has been framed to cover up the probable cost of above mentioned work for accord of A/A & E/S of the competent authority. The requisition of the above said work has been received from client department vide letter No. CC/219/6899 dated 08.10.2012. During the discussion with client on the subject matter it was desired by the client that the least 4 Nos. badminton court should be adjusted in the badminton hall i.e. just like multipurpose hall. Accordingly the sizes of the hall taken as per multipurpose hall under construction at NDRI, Karnal.

DESIGN & SCOPE: -Following provisions have been made in the estimate:-

- 1. RCC framed structure with isolated footing
- 2. Extra for earth resisting earthquake forces.
- 3. Internal water supply, sanitary and electrical installations i/c external service connection.
- 4. Provision for development of site for 4800 sqm area has been taken.
- 5. Provision for automatic fire alarm, Street lighting with HPSV lamps, Exit signage board i/c electrical signage etc. have also been taken in this estimate.

SPECIFICATIONS:

As per CPWD Specifications 2009 Vol. I to 11 with upto date correction

slips.

RATES:

By contract after call of tender.

COST:

Rs. 5,32,88,000/- i/c 3% contingencies

W.C. Estt:

Shall be met out of contingencies.

T&P:

All T&P shall be arranged by the contractor.

METHOD:

Based on PAR-2007 (Re-print 2010).

LAND:

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Available with the client department.

TIME:

After receipt of A/A & E/S

Pre-construction period: (i)

03 Months.

(ii)

Post construction period:

09 months

12 Months

Assistant Engineer (P) CPWD, Chandigarh

Executive Engineer(P)II CPWD, Chandigarh

Nam	e of Work:- C/o Badmir	ton hall in NIT Ca	mpus, Kuruks	hetra.		
S. No.	Descripation of Item	Civil	Electical	Total Amount	Remarks	
1	Badminton Hall	46,968,591.00	3,260,457.00	50,229,048.00	As per Annexure A - E	
		46,968,591.00	3,260,457.00	50,229,048.00	(C)	
	Add 2% VATT	939,372.00	65,209.00	4		
***** ,		47,907,963.00	3,325,666.00		***************************************	
	Add 1% labour cess on (C)	469,686.00	32,605.00			
		48,377,649.00	3,358,271.00			
*****************	Add 3% contingencies.	1,451,329.00	100,748.00	A section of the second section of the second section of the second section se		
				53,287,997.00		
			Say Rs.	53,288,000.00		
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# ABSTRACT OF COST

Name of work :C/o Badminton half in NIT Campus, Kurukshetra. SH:- Civil Work

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No.	Description of Item	Oty.	Rate	11 <u>nU</u>	Amount	Remar
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	R.C.C. framed Structure		.l i			
1	R C C framed structure upto six storcys.	L	<u>i</u> . !			
1,1	Floor height 3.35mtr.(Office/ College/	1600.00	13200.00	sgm	21120000.00	<u>了 1.1.1</u>
	Hospitat)		<b>⊥</b> ⊥		i !	
	· <del>-</del> · · · <del>- · · · · · · · · · · · · · · · </del>		li		[- ' ''	1
	Extra for		<u>i</u>			2244000
		—;non-a	<del> </del> -			(A)
2	Every B 3m4r additional height of floor	1600.00	\$25.00	ടമന	1320000.00	1.2.3
	above normal floor height of 3,35mir /		l ı		1 [	_
	2.9ümtr		1 1		1 1	
	Extra height 5,00-3,35=1,65		!		'	
	150°1 65/0 30=825	1	'		' I	
	150 1 05/0 50-925		<del>├</del> ┈ ┄ <del>┈</del> ├╌			
3	Every 0.30mtr. Higher plinth, over normal	1600.00	150.00	sqm	240000.00	1.2.4
-	plinth height of 0.60m (on GF area only)	. 240,00	i	3-4111	1 240000.00	1.2.4
	(production of the production of the production)				·  -	
4	Every 0 30m deeper foundation over sormal	1600.00	150.00	ទីដូស	j 240000.J0 ^r	1.2.5
	depth of 1 20m (on GF area only)		i i	- 4		
	Resisting earth quake forces	1600.00	630 00	sqm	1008000.GO	1.2.8
_					————— i	
			·		l i	
	Services		:T.	·		
6	Internal water supply & sanitary installations,	22440000.00	4,00	%	897600.00	3.1
	on (A)	<del></del> _	·		<u> </u>	
(	External services on (A)	22440000.00	3.75	<u>%</u>	841500.00	3.2
8	Quality Assusrane on (A)	22440000 00	1 00	%	224400.00	3.6.7
9	Green building concept (GRIHA)	22440000.00	10.00	%	2244000.00	
	Development of site		i			
9	I gnilleveJ	4800.00	55.00	- sqm	2 <u>64000.00</u>	3.1
Ö	Internal road & paths	4800.00	63 00	<u>=4;</u>	398400.00	6.2
ĭ	Sewer	4800.00	63.00	šám	302400.00	6.3
2	Water supply	.:500.00			1 302 100.50	6.4
1	Filtered water supply distribution lines	4800 00	46.00	sqm	220800.00	<del>- 641</del>
-	100num dia & below					
2.2	Unfiltered water supply distribution lines	4800.00	27.00	sqm	129600 00	6 4.3
3	Storm water drains	4800.00	50.00	sgm	240000.00	6 5
4	Hortxculture Operations :	4800.00	47.00	<u>sqm</u>	225600.00j	6.6
	!		-		29916300.00	
	Add cost index @ 57%	į	ļ.		17052291.00	
	1	.			46968591.00	· · - ·
			!		1.7	
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	Assistant Engineer(P)	:			Executive Engin	
	CPWD, Chandigarh				CPWD, Chandig	

	:					Annexure
		OTDAGE	0007	<u> </u>		
	At	STRACT OF	COST			
			L			
	e of work : C/o Badminton hall in NIT Car Electrical Work	npus, Kurukshetra	a.		• .	. •
S.	Description of Item	Qty.	Rate	Unit	Amount	Remark
No.	Description of item	Qty.	Nate	Oill	Amount	Kemark
10.						<del></del>
	Services					
		00.110000.00	40.50			
1	Internal Elect. Installation on (A)	22440000.00	12.50	%	2805000.00	3.3
2	External service connection	22440000.00	1.25	%	280500.00	3.2
3	Extra for power wiring plugs on (A)	22440000.00 22440000.00	4.00	% %	897600.00	3,6.1
4	Extra for call bell system on (A)	22440000.00	1.00 0.50	%	224400.00	3.6.2
5	Extra for lighting conductors on (A)	22440000.00	0.50	% %	112200.00	3.6.3
6 7	Telephone conduits on (A)	22440000.00		%	112200.00	3.6.4
/	Computer conduiting on (A)	22440000.00	0.50	<u>%</u>	112200.00	3.6.6
	Development of site			<del></del>		
1	Street lighting with HPSV lamps	4800.00	95.00	sqm	456000.00	6.7.3
2	Exit signage board i/c electrical signage	4300.00	50.00	sqm	240000.00	6.7.4
3	Automatic fire alram system	1600.00	300.00	sqm	480000.00	2.10.2
					5720100.00	
	Add cost index @ 57%				3260457.00	
					3260457.00	
	- 50-				- sd -	
	Assistant Engineer(P)				Executive Engineer	Pill
	CPWD, Chandigarh				CPWD, Chandigarh	·

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Aviation Light & Lightening conductor in the Mega Boys Hostel (1000 capacity) at NIT, Kurukshetra.

The above mentioned work was placed before the High Power Committee in its meeting held on 01.10.2012. Being the essential requirement of the work, the committee recommended for approval and same was approved by the Hon'ble Director, NIT, Kurukshetra. Executive Engineer (Elect.), CPWD has submitted a cost estimate for the above work for an amount of Rs. 22.55 lacs.

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The B & WC may consider and approve the cost estimate for the above cited work for an amount of Rs. 22.55 lacs.

भारत सरकार केन्द्रीय लोक निर्माण विमाग कें द्रीय वैद्युत मण्डल करनाल

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TEL & FAX-01842254952 E-mail: eeekced@gmail.com, cpwdknl@hotmail.com,cpwdeknl@yahoo.com
संख्या : 20 [36] क्वकेव्येवमंव / 2012 / 149  To  The Chairman (E & M),
Sub: Providing & Installation of DLPS on the Newly Constructed Mega Boys Hostel at NIT, Kurukshetra.
Enclosed, Please find herewith the Preliminary Estimate amounting to ₹ 22,54,854/- in duplicate of
Copy to :-Asstt. Engineer (E), Karnal Central Electrical Sub Division, CPWD Karnal for information.  Executive Engineer (E)  Karnal Central Electrical Sub Division, CPWD Karnal for information.  Executive Engineer (E)
Also Call AE (cpwD) for  Also Call AE (cpwD) for  Office (cm)  The matter has been discussed in  the office of undersooned to porcon  the case. The  35-7-12

HCCCO HAT 118/12

# CENTRAL PUBLIC WORKS DEPARTMENT

State: Haryana Branch: E&M

Division: Karnal Central Elect. Divn.Karnal Sub-Division: Karnal Central Elect. Sub-Divn

Estimate No.

Name of Work: Providing & Installation of DLPS on the Newly Constructed Mega Boys Hostel at NIT, Kurukshetra.

This Preliminary Estimate has been framed by Er. Narender Kaushal, Executive Engineer(Elect.), Karnal Central Elect. Division, CPWD, Karnal for the probable cost of ₹ 22,54,854/including 5% contingencies.

#### REPORT

History:

This estimate has been framed to cover the probable cost of ₹ 22,54,854/- including 5% contingencies for the above noted work in accordance with the letter No. 3461/CC/156/3781 CP-64 dated 19.7.12 from Chairman(EC & EM) for providing aviation lighting and lightning conductor on the newly constructed Mega Boys Hostel (1000 Capacity) at NIT Kurukshetra. Accordingly this preliminary estimate has been prepared for obtaining Administrative Approval & Expenditure Sanction of the Competent Authority.

Design & Scope:

The following provisions have been kept in this estimate:

- Dual source based (Wind & Solar) Direct lightning, Protection system complete with a) remote control tester, lightning event counter etc complete. - 2 sets
- b) 70 sq.mm copper conductor cable as down conductor.
- Gel chemical earthing along with GI strips in pipe/ on surface etc. 16 sets c)
- Twin dome Aviation lights 2 sets d)

Method:

Through Contract

Rates:

Market Rate

Time:

2 Months

Cost:

₹ 22,54,854/- including 5% contingencies

Assistant Engineer(Elect.) Karnal Central Elect. Division,

C.P.W.D. Karnal.

Executive Engineer (Elect.), Karnal Central Elect. Division.

C.F.W.D. Karnal.

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S.No.	Description of Item	Qty.		Rate	Unit	Amount
	Providing and fixing of dual source base (Wind & Solar) direct lightning, Protection system & Air terminal complete					
· · · · · · · · · · · · · · · · · · ·	as required.	2	sets	600000.00	each	1200000.00
2	Providing and fixing of lightning remote control tester complete as required.	2	Nos	75000.00	each	150000.00
3	Providing and fixing of lightning event counter complete as required.	2	Nos	37000.00	each	74000.00
1.	Supplying and laying of 70 sq.mm copper conductor cable as down conductor from air terminal complete as required.	200	mtrs	800.00	metre	160000.00
5	Providing and fixing of Gel chemical earthing complete as required.	16	sets	32000.00	set	512000.00
}	Providing and fixing 25mm x 5mm cu conductor in 40mm dia GI pipe etc. as required.	70	mtrs	384.00	metre	25480.00
					1 1 1 1 1	4 1
7	Providing and fixing 25mm x 5mm cu strip on surface/ recess etc. as required.	50	mtrs	120.00	metre	6000.00
3	Providing twin dome aviation light including wiring/					
	connections etc. complete as required.	. 2	Nos	10000.00	each	20000.00
					TOTAL	2147480.00
			Add con	tingencies @ 59	the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s	107374.00
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Assitant Engineer(Elect.)
Karnal Central Elect. Sub-Division,
C.P.W.D. Karnal

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Executive Engineer(Elect.)
Karnal Central Elect. Division,
C.P.W.D. Karnal.

# CENTRAL PUBLIC WORKS DEPARTMENT

State: Haryana Branch: E&M

Division: Karnal Central Elect. Divn.Karnal Sub-Division: Karnal Central Elect. Sub-Divn

Estimate No.

Name of Work: Providing & Installation of DLPS on the Newly Constructed Mega Boys Hostel at NIT, Kurukshetra.

This Preliminary Estimate has been framed by Er. Narcnder Kaushal, Executive Engineer(Elect.), Karnal Central Elect. Division, CPWD, Karnal for the probable cost of ₹ 22,54,854/including 5% contingencies.

# REPORT

History:

This estimate has been framed to cover the probable cost of ₹ 22,54,854/- including 5% contingencies for the above noted work in accordance with the letter No. 3461/CC/156/3781 dated 19.7.12 from Chairman(EC & EM) for providing aviation lighting and lightning conductor on the newly constructed Mega Boys Hostel (1000 Capacity) at NIT Kurukshetra. Accordingly this preliminary estimate has been prepared for obtaining Administrative Approval & Expenditure Sanction of the Competent Authority.

Design & Scope:

The following provisions have been kept in this estimate:

- a) Dual source based (Wind & Solar) Direct lightning, Protection system complete with remote control tester, lightning event counter etc. complete. 2 sets
- b) 70 sq.mm copper conductor cable as down conductor.
- c) Gel chemical earthing alongwith GI strips in pipe/ on surface etc. 16 sets
- d) Twin dome Aviation lights 2 sets

Method:

Through Contract

Rates:

Market Rate

Time:

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2 Months

Cost:

₹ 22,54,854/- including 5% contingencies

Assistant Engineer(Elect.)
Karnal Central Elect. Division,

C.P.W.D. Karnal.

Executive Engineer (Elect.), Karnal Central Elect. Division,

C.P.W.D. Karnal.

	PRE	LIMII	YARY	ESTIA	<b>NATE</b>
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Name of Work: Providing & Installation of DLPS on the Newly Constructed Mega Boys

	Hostel at NIT, Kurukshetra.					
S.No.	Description of Item	Qty.		Rate	Unit	Amount
					1	
1	Providing and fixing of dual source base (Wind & Solar) direct lightning, Protection system & Air terminal complete as required.	2	sets	600000.00	each	1200000.00
2	Providing and fixing of lightning remote control tester complete as required.	2	Nos	75000.00	each	150000.00
3	Providing and fixing of lightning event counter complete as required.	2	Nos	37000.00	each	74000.00
4	Supplying and laying of 70 sq.mm copper conductor cable as down conductor from air terminal complete as required.	200	mirs	800.00	metre	160000.00
5	Providing and fixing of Gel chemical earthing complete as required.	16	sets	32000.00	set	512000.00
6	Providing and fixing 25mm x 5mm cu conductor in 40mm dia GI pipe etc. as required.	70	mtrs	384.00	metre	25480.00
7	Providing and fixing 25mm x 5mm cu strip on surface/recess etc. as required.	50	mtrs	120.00	metro	€000.00
8	Providing twin dome aviation light including wiring/connections etc. complete as required.	2	Nos	10000.00	each	20000.00
			A al al a = -	-ti	TOTAL	2147480.00
		<del></del>	Add Cor	ntingencies @ 5%	G.TOTAL	107374.00
					G.IUIAL	2254854.00

Assitant Engineer(Elect.)
Karnal Central Elect. Sub-Division,
C.P.W.D. Karnal

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Executive Engineer(Elect.)
Karnal Central Elect. Division,
C.P.W.D. Karnal.

Item No. 16.9

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To consider & approve the Cost Estimate for construction of underground static water tank of 1.5 lakh liter capacity for fire-fighting purpose in Mega Boys hostel at NIT, Kurukshetra.

The above mentioned work was placed before the High Power Committee in its meeting held on 01.10.2012. Being the essential requirement of the work, the committee recommended for approval and same was approved by the Hon'ble Director, NIT, Kurukshetra. Executive Engineer, CPWD has submitted a cost estimate for the above work for an amount of Rs. 64.29 lacs.

The B & WC may consider and approve the cost estimate for the above cited work for an amount of Rs. 64.29 lacs.

केन्द्रीय लोक निर्माण विभाग करनाल केन्द्रीय मण्डल ४४८, सुभाष कालोनी, करनाल

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दिनांक *25/10/12* 

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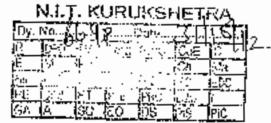
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The Director, NIT, Kurukshetra



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- 1. Construction of boundary wall for additional block of Health centre at NIT, Kuruksbetra.
- 2. Construction of boundary wall enclosing the Girls hostel at NIT, Kurukshetra.
- 3. Extension of existing corridor towards south ward upto road in the NIT campus, Kurukshetra.
- 4. Provision of 150000 litre capacity underground static water storage tank for fire fighting in Mega boy's hostel (1000 capacity) at NIT Campus, Kurukshetra.

ਕੰਪੜਾ : अगणके कार्यालय पत्र संख्या CC/319/6899 Dt. 8.10.2012.

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उपरोक्त कार्य का विस्तृत प्राथकलन जिसकी लागत रूपये 8,23,2007-, नात 23,82,300.- उपये 29,26,6007- एवं रूपये 64,29,5007- (रूपये 12 का 500 (शिवित) + रूपवे 19,75,000 (विद्युत) है, आपके प्राथित्य से प्रशासक्तिक उक्कत एवं त्यस मंत्र्य प्राप्त काली हेलू शंसका है।

आएमें अनुरोध है कि उपरोक्त स्थीकृति जल्दी से जल्दी भेजें ताकि अस्पित २०५८ी हो का एकें। प्रतासना की एक प्रति भी प्रशासनिक स्थीकृति एवं के आय

ंता अंति क्षित्र क्षिण्या (ECVEM)

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कार्यायनक अभियंता

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#### GOVERNMENT OF INDIA

### CENTRAL PUBLIC WORKS DEPARTMENT

HARYANA Stare

KARNAL CENTRA DIVISION

Branch KARNAL

SUB-DIVISION: KARNAL CENTRA

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Name of Work : Provision of 150000 litre capacity underground static water storage tank for fire

fighting in Mega boy's bostel (1000 capacity) at NIT Campus, Kurukshetra.

Major Head	Minor Head	Detailed Head

This preliminary estimate has been framed by Sh. Iqbal Singh, Executive Engineer, Karnal Central Division, CPWD, Karnal for Rs. 64.29,500/- (Civil + Electrical) i/c 5% contingencies.

# REPORT

History

This preliminary estimate amounting to Rs. 64,29,500/- (Civil + Electrical) i/o 5% contingencies has been framed to cover up the probable cost of above mentioned work for accord of A/A & E/S. of the competent authority. The requisition of the above said work has been received from client department vide letter No. CC/219/6899 Dt. 8.10.2012.

(besign

Following provision has been made (for civil work only) in the estimate:-

1. Underground water storage tank 150000 lirre capacity.

Pumpyoom for installation of pumps.

Room for pump operator.

Specification

As per CPWD Specification 2009 vol 1 to II with upto date correction slip-

W.C. Establishment. Shall be met out of contingencies.

O f. & P.

Shall be amanged by the contractor.

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Available.

**Rate** 

By contract after call of tender.

Method

Based on PAR-2007 with opto date correction slip.

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Rs. 64.29,500/ (Civil + Electrical) i/c 5% contingencies.

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EXECUTIVE ENGINEER KARNAL CENTRAL DIVISION UPAVID KARNALI

# GENERAL ABSTRACT

Name of work: Provision of 150000 litre capacity underground static water—storage tank for fire fighting in Mega boy's hostel (1000 capacity) at NIT Campus, Kurukshetra.

Amexure -I (Civil works)

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Rs. 44,54,500/-

Annexure - II (Elect. Works)

Rs. 19,75,000/-

Total

Rs. 64,29,500/-

Say Rs. 64,29,500/-

AR(P)

Executive Engineer Karnal Central Division CPWD, Karnal

ABSTRACT OF COST  NOte of work: Provision of 150000 litre capacity underground static water storage tank for fire fighting in Mega  boy's nostel (1000 capacity) at NIT Campus, Kurukshetra.										
Q.No.	Doscription of Item	Qly.	Rate	Unit	Amount Ren	narks				
0		! !	·		İ					
<b>Ģ</b> ¹	Pump room (basement)	50 00	1803 <b>5.0</b> 0	sgm	901750.00 901750.00	3.1				
@ ¹¹	Load bearing construction floor height 2.90 metre (room for pump operator) Services	25.00	6390.00	sqm		2.1				
<b>⊕</b> 2	Internal water supply & sanitary installations	1061500.00	i : : 4.000	100 B.Cost	<u> </u>	1				
<b>●</b> 1	External services connections.	1061500.00	5.00	100 B.Cost		.2				
<b>Q</b> 4	Internal efectric installation	1061500.00	12 50	100 B.Cost i	-· <b>.</b>	5.7				
<b>♣</b> 5	Underground sump	150000.00	9.00	litre		5				
•	· ·	130000			2639723.00					
•	Add Cost Index @ 53 00%	- · · · · · · · · · · · · · · · · · · ·		i	1399053.00					
<b>⊕</b>	TOTAL	<u>.</u>	;	<del>.</del>	4038776.00					
•	Add Contingencies @ 5%		; '	· <del></del>	201939.00					
<u>.</u>	TOTAL Add Labour Cess @ 1%		ļ <u>.</u>		4240715.00 <u> </u> 42407.00;					
_	TOTAL		├ <del>-</del> <del>i</del>	· · · .	4283122.00	- · · ·				
•	Add Sale Yax @ 4%		!   	· -	171325.00					
<b>③</b>	GRAND TOTAL		:- :::::::::::::::::::::::::::::::::::		4454447.00	. <b>-</b>				
<b>@</b>	• !		. :	Say Rs.	44,54,500/-					
Φ.				. :	1i					
٥	:	4	الحلة		cutive Engineer					
0		AL	02	Karn	al Central Division CPWO, Kamal	-				
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# ABSTRACT OF ELECTRICAL WORK

Details given by Executive Engineer(Electrical)

Name of work :- Provision of 150000 litre capacity underground static water storage tank for fire fighting in Mega boy's hostel (1000 capacity) at NIT Campus, Kurukshetra.

Description of work	Amount
Electrical motor & Pump	Rs. 4.00 lacs
Disesal operated motor & pump	Rs. 7.00 facs
Pressurisation pump	Rs. 1.75 lacs
Electical panel	Rs. 3,00 lacs
U.T. cable & carthing	Rs. 2.00 lacs
Enocration panel	Rs. 2.00 lacs
Total Amount	Rs. 19.75 lacs

AE(P)

Executive Engineer
Kamal Central Division
CPWD, Kamal

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Item No. 16.10 To consider & approve existing LT Panels with MCB's in the Institute at NIT, Kurukshetra.

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The above mentioned work was placed before the High Power Committee in its meeting held on 01.10.2012. Being the essential requirement of the work, the committee recommended for approval and same was approved by the Hon'ble Director, NIT, Kurukshetra. Executive Engineer (Elect.), CPWD has submitted a cost estimate for the above work for an amount of Rs. 43.62 lacs.

The B & WC may consider and approve the cost estimate for the above cited work for an amount of Rs. 43.62 lacs.

भारत सरकार केन्द्रीय लोक निर्माण विभाग केंद्रीय वैद्युत करनाल मण्डल TEL & FAX-01842254952 E-mail:eeekced@gmail.com, cpwdknl@hotmail.com,cpwdeknl@yahoo.com 0 0 संख्या : 20 { 38 }/क0के0वै0मं0/2011-12/328 0 Τo, The Chairman (E&M), Ist Floor, Admn. Block, NIT, Kurukshetra (Haryana) Subject: Providing L.T. Panels at the various Buildings in the Non-Residential Area at NIT Kurukshetra ik: Enclosed, Please find herewith the Preliminary Estimate amounting to ₹43,62,960 /- for accord of Admn. approval and Expenditure Sanction. Executive Engineer (E), Karnal, Central Elect. Divn., CPWD, Karnal Copy to :-Asstt. Engineer (E), Karnal Central Electrical Sub Division, CPWD Karnal for information. dia. **(3)** 0 **Executive Engineer (E)** 0 0 0 Jettes to process the case. () The items included in the estimate arrevenired for various buildings in institute for proper termination of cables and for safety. It may be sent for approval 0 0  $\bigcirc$ He to process the carse usgently Misc_Letters_fl.doc

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# CENTRAL PUBLIC WORKS DEPARTMENT

Strite: Haryana Branch: E&M Division: Karnal Central Elect. Divn.Karnal Sub-Division: Karnal Central Elect. Sub-Divn

Estimate No.

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Name of Work: Providing L.T Panels at the various Buildings in the Non-Residential Area at NET Kurukshetra.

This Preliminary Estimate has been framed by Er. Narender Kaushal, Executive Engineer(Elect.), Karnal Central Bleet. Division, CPWD, Karnal for the probable cost of ₹ 43,62,960 /-meluding 5% contingencies.

## <u>REPORT</u>

History:

This Preliminary estimate amounting to ₹ 43,62,960/- only including 5% contingencies has been framed for the above noted work in accordance with the letter No. 8M/2012/NITK/413 dated 19.1.12 received from Prof. Incharge(EM), LT Panels/Distribution Brands installed at the various buildings in the non-residential area of NIT Campus are rusted and very dangerous from fire point of view. It is proposed to replace these old panels/distribution hoards with cubical type panel/ double door DB's with MCCB/ MCB's. Accordingly this preliminary estimate has been framed for obtaining administrative approval and expenditure sanction of the competent authority.

Design & Scope:

The following provisions have been kept in this estimate:

- a) Cubical type L.T Panels with MCCB's/ Changeover switch/ MCB's etc. of required size in the various buildings.
- b) Double door TP DB's/ SP MCB DB's with MCCB's/ MCB's of suitable ratings in the various huildings.

Method:

Through Contract

Q Rates:

Market Rate

O Time:

4 Months

O Cost:

₹ 43,62,960/- including 5% contingencies

Executive Engineer (E) \

Karnal Central elect Division

CPWD, Kamal

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		,				
No.	Description of Item	Qty.		Rate	Unit	Amount
	Fabrication & installation of cubical L.T Panels made out	• .		-		
	of 2mm thick CRCA sheet of required size as per site		ļ	N.		
	requirement complete with TP&N busbar of suitable rating	00		45500 00		
	complete as required.	60	sq.mtr	15500.00	sq.mtr	930000.0
·	Supplying and fixing following switchgears/ accessories in					0.00
				•	. [:	
	the existing cubical panel including testing and commissioning complete as required.	'				
				4000.00		0.00
	a) 63 Amp TP MCCB's	85	Nos	4600.00	each	391000.00
	h) 400 A TD MOODI	05	NI	2222 22		
	b) 100 Amp TP MCCB's	95	Nos	6300.00	each	598500.00
	c) 250 Amp TP MCCB's	24	Nos	13000.00	2000	240000 00
	c) 200 Amp II MCCBs		NOS	12000,00	each	312000.00
	d) 400 Amp TP MCCB's	6	Nos	33000.00	each	198000.00
	9, 100 / Unip 11 1110000	<u>_</u>	1100	- 00000.00	·	190000.00
	e) 100 Amp Onload changeover switch	6	Nos	5800.00	each	34800.00
			1100	0000.00	Cuon	0-1000.00
	f) 200 Amp Onload changeover switch	6	Nos	12000.00	each	72000:00
	g) 40/63 Amp double pole MCB's	35	Nos	1100.00	each	38500.00
	42.00.000	W. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10				1
· <del>_</del>	h) 40/63 Amp Four pole MCB's	25	Nos	2100.00	each	52500.00
•	i) SP MCB's (Assorted ratings)	150	Nos	226.00	each	33900.00
			ļ			
	Supplying and fixing following DB's including connections,					
	testing, commissioning etc. as required.  a) 8/12 way double door SP MCB DB complete with 1 No.					
	40/63 Amp DP MCB and 8 Nos SP MCB's of assorted					
	rating complete.	240	sets	4600.00		4404000 0
	b) 4 way double door TP DB complete with 1 No. 63 Amp	240	Seis	4600.00	set	1104000.00
	MCCB & 12 Nos SP MCB's of assorted rating complete.					
	WOOD & 12 1405 OF WOD'S OF assorted fating complete.	10	sets	16000.00	set	160000.00
	c) 8 way double door TP DB complete with 1 No. 100	10	3013	10000.00	361	100000.00
	Amp MCCB & 24 Nos SP MCB's pf assorted rating					
	complete.	10	sets	23000.00	set	230000.00
	TT WATER					7 (3,74,77,77)
			*		TOTAL	4155200.00
			Add conti	ngencies @ 59		207760.00
	1 101 10 1 101 10 101 101 101 101 101 1	·		3	G.TOTAL	4362960.00

Executive Engineer(Elect.) Karnal Central Elect. Division, C.P.W.D. Karnal.

# NATIONAL INSTITUTE OF TECHNOLOGY (INSTITUTION OF NATIONAL IMPORTANCE) KURUKSHETRA

No. EM/2012/NITK/ 413

Date: 17.01.2012

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Executive Engineer (Electrical), Karnal Central Electrical Division, CPWD-22A, Indira Colony,

Karmal.

Sub:

Installation of HT/LT Substation Street light & feeder pillar in non-residential area, NITK.

Tog are requested to provide the preliminary estimate for providing 1.7 panels at the various buildings to the nun-residential area of  $\sim$ the metitate. As these buildings are very old and termination points may not be conpatible and safe. The list of these buildings are as underfi-

- Boys Hostel no. 1 to 6. ١.
- Girls Hostel no 1 2.
- Workshop building Э.
- Old Administrative Building
- Examination Hall á.
- Electrical/ Civil/ Mechanical/ Applied O.

Acchanics/CCN/Electronics/ Computer Departments.

- Ÿ Library
- Health Centre 8.
- Sports Complex Ģ.
- duest Floose 10.
- lί Faculty House.
- Student Activity Centre 12
- igspaid Store 53.

Chairman 16, C & EM]

Prof I/C (EM)

of existing Electrical wirings in instructional building at NIT, Kurukshetra.

The above mentioned work was placed before the High Power Committee in its meeting held on 01.10.2012. Being the essential requirement of the work, the committee recommended for approval and same was approved by the Hon'ble Director, NIT, Kurukshetra. Superintending Engineer, CPWD has submitted the following cost estimates.

- (i) Replacement/rewiring of Al Wiring with copper wiring in Electrical Engineering Department for an amount of Rs. 1,42,72,401/-.
- (ii) Replacement/rewiring of Al Wiring with copper wiring in old Admn. Block for an amount of Rs. 1,40,22,008/-
- (iii) Replacement/rewiring of Al Wiring with copper wiring in Examination Cell, Mechanical Engineering Department & Civil Engineering Department for an amount of Rs. 1,10,17,292/-
- (iv) Replacement/rewiring of Al Wiring with copper wiring in Electronics & Communication, CCN Department & Exam Hall for an amount of Rs. 1,62,75,545/-

The B & WC may consider and approve the cost estimate for the above cited works for an amount of Rs. 142.72 , 146.22, 110.17 and 162.76 lacs respectively.

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मारत सरकार केन्द्रीय लोक निर्माण विमाग अधीक्षण अभियंता (वैधुत) चण्डीगढ़ केन्द्रीय वैधुत परिमडंल, केलोनिवि, केन्द्रीय सदन, सैक्टर—9, चण्डीगढ़ दूरभाष एवं फैक्स सख्याः 0172—2740413, दूरभाष :—0172—2741778



GOVT OF INDIA CENTRAL PUBLIC WORKS DEPARTMENT Superintending Engineer(Elect), Chandigarh Central Elect Circle, CPWD, Kendriya Sadan, Sector-9, Chandigarh Phone & FAX No . 0172-2740413, Phone:-0172-2741778

दिनांक:- 9/11/20/<u>2</u>

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The Chairman (I/C E&M) 1st floor, Admn, Block, NIT Kurukshetra.

विषय:—

Preliminary Estimates for re-wiring of old Academic Buildings

संदर्भ:-

Letter No. CC/220/6900 dated 08.10.2012

With reference to your above referred letter please find enclosed herewith Preliminary Estimates of following works to get the administrative approval and expenditure sanction of the competent authority.

Sr. No	Name of Work	Amount
1	Replacement/ rewiring of Al. wiring with copper wiring in Electrical Engineering Department at NIT, Kurukshetra.	Rs. 1,42,72,401/=
2	Replacement/ rewiring of Al. wiring with copper wiring in old Admn Block at NIT, Kurukshetra.	Rs. 1,40,22,008/=
3	Replacement/ rewiring of Al. wiring with copper wiring in Examination Cell, Mechanical Engineering Department & Civil Engineering Department at NIT, Kurukshetra.	Rs. 1,10,17,292/=
4	Replacement/ rewiring of Al. wiring with copper wiring in Electronics & Communication, CCN Department & Exam Hall at NIT, Kurukshetra.	Rs. 1,62,75,545/=

Encl:- As above (4 Nos. PE)

अधीक्षण अभियन्ता(वै०) चण्डी० केन्द्रीय वैद्युत परिमण्डल, के०लो०नि०वि, सै०–१ए चण्डीगढ।

Copy to:-

1. The Executive Engineer (E), Karnal Central Electrical Division, CPWD, 22A, Indira Colony, Karnal-132001 for information with Encl:- As above (4 Nos)

अधीक्षण अभियन्ता(वै०)

NAME OF WORK:- Replacement/ rewiring of Al. wiring with copper wiring in Electrical Engineering Department at NIT, Kurukshetra.

Head of A/c :- Deposits Work.

This preliminary estimate framed by Er. Narender Kaushal, Executive Engineer (E), Karnal Central Electrical Division, CPWD, Karnal and processed in the office of Superintending Engineer (E), Chandigarh Central Electrical Circle, CPWD, Chandigarh for the probable cost of Rs. 1,42,72,401/- i/c 3% contingencies.

#### REPORT

## **HISTORY**

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- These buildings are about 15-20 years old. The electrical installation has already completed its useful prescribed life. The physical condition of wiring is not satisfactory. Hence, it is technically inevitable to replace the old wiring by new. The existing DBs and MDBs are old & rewirable type which are to be replaced by MCBs & MCB DBs.
- 2. Hence, this preliminary estimate amounting to Rs. 1,42,72,401/- i/c contingencies has been prepared on the basis of the request received from NIT authorities vide their letter No. No/CC/220/6900 dated 08/10/2012 for obtaining the Administrative Approval and Expenditure Sanction of the competent Authority and for deposit of funds.

### **DESIGN & SCOPE:-**

This estimate keeps the following provisions in it.

- a) Replacement of complete aluminium wiring with copper wiring.
- b) Provision of aesthetically good looking modular type switches.
- c) Provision for Cubical type L.T. Panels in place of industrial type.
- d) Provision of MCB type DBs in place of conventional type of DBs..
- e) Replacement of old/obsolete type fittings and ceiling fans by the new ones of higher energy efficiencies.
- f) Extra provisions for telephone conduits, cables and outlets.

All items considered necessary have been accounted for, unforeseen item, if any, will be met out of contingencies kept in the estimates.

RATES:-

N.S.R. 2008

AMOUNT:-

Rs. 1,42,72,401/- including contingencies.

TIME:-

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2 months for tendering and 6 months for execution.

METHOD:-

Through Contract.

Executive Engineer (E) P
Chandigarh Central Elect. Circle,
CPWD, Sec-9A, Chandigarh

Superintending Engineer (E) Chandigarh Central Elect. Circle, CPWD, Sec-9A, Chandigarh **SCHEDULE OF WORK** 

NAME OF WORK: Replacement/ rewiring of Al. wiring with copper wiring in Admn Block at NIT, Kurukshetra.

SI.	Description of item	Qty.	Rate	Unit	Amount
No.					
1	Complete rewiring including provision of Modular switches, Cubical panels, MCB DB,s telephone conduits and replacement of fans				
	and fittings.	5600 Sq.Mtr	2210.00	Sq.Mtr	12376000.00
2	Extra for use of energy efficient luminiaries	10% of item	No. 1		1237600.00
	Total				13613600.00
	Adding contingencies @	3%			408408.00
	G/Total	-			14022008.00

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Executive Engineer (E)P Chandigarh Central Electrical Circle CPWD, Chandigarh Superintending Engineer(E)

Chandigarh Central Electrical Circle

CPWD, Chandigarh

NAME OF WORK :- Replacement/ rewiring of Al. wiring with copper wiring in Admn Block at NIT, Kurukshetra.

Head of A/c :- Deposits Work.

This preliminary estimate framed by Er. Narender Kaushal, Executive Engineer (E), Karnal Central Electrical Division, CPWD, Karnal and processed in the office of Superintending Engineer (E), Chandigarh Central Electrical Circle, CPWD, Chandigarh for the probable cost of Rs. 1,40,22,008/- i/c 3% contingencies.

### REPORT

### **HISTORY**

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- These buildings are about 15-20 years old. The electrical installation has already completed its useful prescribed life. The physical condition of wiring is not satisfactory. Hence, it is technically inevitable to replace the old wiring by new. The existing DBs and MDBs are old & rewirable type which are to be replaced by MCBs & MCB DBs.
- 2. Hence, this preliminary estimate amounting to Rs. 1,40,22,008/- i/c contingencies has been prepared on the basis of the request received from NIT authorities vide their letter No. No/CC/220/6900 dated 08/10/2012 for obtaining the Administrative Approval and Expenditure Sanction of the competent Authority and for deposit of funds.

# **DESIGN & SCOPE:-**

This estimate keeps the following provisions in it.

- a) Replacement of complete aluminium wiring with copper wiring.
- b) Provision of aesthetically good looking modular type switches.
- c) Provision for Cubical type L.T. Panels in place of industrial type.
- d) Provision of MCB type DBs in place of conventional type of DBs..
- e) Replacement of old/obsolete type fittings and ceiling fans by the new ones of higher energy efficiencies.
- f) Extra provisions for telephone conduits, cables and outlets.

All items considered necessary have been accounted for, unforeseen item, if any, will be met out of contingencies kept in the estimates.

RATES:-

N.S.R. 2008

AMOUNT:-

Rs. 1,40,22,008/- including contingencies.

TIME:-

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2 months for tendering and 6 months for execution.

**METHOD:-**

Through Contract.

Executive Engineer (E) P
Chandigarh Central Elect. Circle,
CPWD, Sec-9A, Chandigarh

Superintending Engineer (E)
Chandigarh Central Elect. Circle,
CPWD, Sec-9A, Chandigarh

OLIVINAL I ODLIO MORRIO DEI / III III III III

NAME OF WORK:- Replacement/ rewiring of Al. wiring with copper wiring in Examination Cell, Mechanical Engineering Department & Civil Engineering Department at NIT, Kurukshetra.

Head of A/c :- Deposits Work.

This preliminary estimate framed by Er. Narender Kaushal, Executive Engineer (E), Karnal Central Electrical Division, CPWD, Karnal and processed in the office of Superintending Engineer (E), Chandigarh Central Electrical Circle, CPWD, Chandigarh for the probable cost of Rs. 1,10,17,292/- i/c 3% contingencies.

# REPORT

## **HISTORY**

- 1. These buildings are about 15-20 years old. The electrical installation has already completed its useful prescribed life. The physical condition of wiring is not satisfactory. Hence, it is technically inevitable to replace the old wiring by new. The existing DBs and MDBs are old & rewirable type which are to be replaced by MCBs & MCB DBs.
- 2. Hence, this preliminary estimate amounting to Rs. 1,10,17,292/- i/c contingencies has been prepared on the basis of the request received from NIT authorities vide their letter No. No/CC/220/6900 dated 08/10/2012 for obtaining the Administrative Approval and Expenditure Sanction of the competent Authority and for deposit of funds.

### **DESIGN & SCOPE:-**

This estimate keeps the following provisions in it.

- a) Replacement of complete aluminium wiring with copper wiring.
- b) Provision of aesthetically good looking modular type switches.
- c) Provision for Cubical type L.T. Panels in place of industrial type.
- d) Provision of MCB type DBs in place of conventional type of DBs..
- e) Replacement of old/obsolete type fittings and ceiling fans by the new ones of higher energy efficiencies.
- f) Extra provisions for telephone condults, cables and outlets.

All items considered necessary have been accounted for, unforeseen item, if any, will be met out of contingencies kept in the estimates.

RATES:-

N.S.R. 2008

AMOUNT:-

Rs. 1,10,17,292/- including contingencies.

TIME:-

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2 months for tendering and 6 months for execution.

METHOD:-

Through Contract.

Executive Engineer (E) P Chandigarh Central Elect. Circle, CPWD, Sec-9A, Chandigarh Superintending Engineer (E) Chandigarh Central Elect. Circle, CPWD, Sec-9A, Chandigarh

#### SCHEDULE OF WORK

NAME OF WORK: Replacement/ rewiring of Al. wiring with copper wiring in Electrical Engineering Department at NIT, Kurukshetra.

SI.	Description of item	Qty.	Rate	Unit	Amount
No.			*		
			·····		
1	Complete rewiring including provision of Modular switches, cubical panels, MCB DB,s telephone conduits and replacement of fans.				
		5700 Sq.Mtr	2210.00	Sq.Mtr	12597000.00
.2	Extra for use of energy efficient luminiaries	10% of item	No. 1		1259700.00
	Total			2.4	13856700.00
	Adding contingencies @	3%			415701.00
	G/Total				14272401.00

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Executive Engineer (E)P
Chandigarh Central Electrical Circle
CPWD, Chandigarh

Superintending Engineer(E)
Chandigarh Central Electrical Circle
CPWD, Chandigarh

CENTINAL I ODERO MONNO DEFARIBIENT

NAME OF WORK:- Replacement/ rewiring of Al. wiring with copper wiring in Electronics & Communication, CCN Department & Exam Hall at NIT, Kurukshetra.

Head of A/c :- Deposits Work.

This preliminary estimate framed by Er. Narender Kaushal, Executive Engineer (E), Karnal Central Electrical Division, CPWD, Karnal and processed in the office of Superintending Engineer (E), Chandigarh Central Electrical Circle, CPWD, Chandigarh for the probable cost of Rs. 1,62,75,545/- i/c 3% contingencies.

### REPORT

# **HISTORY**

- These buildings are about 15-20 years old. The electrical installation has already completed its useful prescribed life. The physical condition of wiring is not satisfactory. Hence, it is technically inevitable to replace the old wiring by new. The existing DBs and MDBs are old & rewirable type which are to be replaced by MCBs & MCB DBs.
- 2. Hence, this preliminary estimate amounting to Rs. 1,62,75,545/- i/c contingencies has been prepared on the basis of the request received from NIT authorities vide their letter No. No/CC/220/6900 dated 08/10/2012 for obtaining the Administrative Approval and Expenditure Sanction of the competent Authority and for deposit of funds.

# **DESIGN & SCOPE:-**

This estimate keeps the following provisions in it.

- a) Replacement of complete aluminium wiring with copper wiring.
- b) Provision of aesthetically good looking modular type switches.
- c) Provision for Cubical type L.T. Panels in place of industrial type.
- d) Provision of MCB type DBs in place of conventional type of DBs..
- e) Replacement of old/obsolete type fittings and ceiling fans by the new ones of higher energy efficiencies.
- f) Extra provisions for telephone conduits, cables and outlets.

All items considered necessary have been accounted for, unforeseen item, if any, will be met out of contingencies kept in the estimates.

RATES:

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N.S.R. 2008

AMOUNT:-

Rs. 1,62,75,545/- including contingencies.

TIME:-

2 months for tendering and 6 months for execution.

**METHOD:-**

Through Contract.

Executive Engineer (E) P Chandigarh Central Elect. Circle, CPWD, Sec-9A, Chandigarh Superintending Engineer (E)
Chandigarh Central Elect. Circle,
CPWD, Sec-9A, Chandigarh

# SCHEDULE OF WORK

NAME OF WORK: Replacement/ rewiring of Al. wiring with copper wiring in Examination Cell, Mechanical Engineering Department & Civil Engineering Department at NIT, Kurukshetra.

SI.	Description of item	Qty.	Rate	Unit	Amount
No.			*		
1	Complete rewiring including provision of				
	Modular switches, Cubical panels, MCB DB,s				
	telephone conduits and replacement of fans				
	and fittings.	4400 Sq.Mtr	2210.00	Sq.Mtr	9724000.00
2	Extra for use of energy efficient luminiaries	10% of item	10% of item No. 1		972400.00
	Total				10696400.00
	Adding contingencies @	3%			320892.00
	G/Total	1,			11017292.00

Executive Engineer (E)P
Chandigarh Central Electrical Circle
CPWD, Chandigarh

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Superintending Engineer(E)
Chandigarh Central Electrical Circle
CPWD, Chandigarh

#### NATIONAL INSTITUTE OF TECHNOLOGY (INSTITUTION OF NATIONAL IMPORTANCE) KURUKSHETRA

No/CC/ 220/6900

Dated: 08.10.2012

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The Executive Engineer (Elect.) Karnal Central Electrical Division, CPWD, 22-A Indira Colony, Karnal

# Subject: 4-00 Providing preliminary estimate for yarious works.

Provision of Contralized ACTion Jubilee Hall and Sonate Hall.

Provision of Lifts for Persons with Disabilities (PwD) at various locations of academic area.

Electrical rewiring of Old Academic Buildings, ,

Revised Estimate for HP/LT Sub-Station and Street Light Fooder
Pillar in Non-Residential Area

5. Replacement of old LT Panels at various Non-Residential Buildings for proper termination.

Provision of D.G. Set Backup supply for Academic Area.

You are therefore, requested to submit the preliminary estimate within slowlays perspession tenst sindex souther pairlest say that for the recessory action that the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contact of the contac

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Chaleman E. C.C. EM

Prof. 1/C (EM) for information.

in campus to facilitate the maintenance works at roof top at NIT, Kurukshetra.

The above mentioned work was placed before the High Power Committee in its meeting held on 01.10.2012. Being the essential requirement of the work, the committee recommended for approval and same was approved by the Hon'ble Director, NIT, Kurukshetra. Executive Engineer, CPWD has submitted a cost estimate for Provision of staircase in BA, BB, CB & CC type houses at NIT, Kurukshetra for an amount of Rs. 34.15 lacs.

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The B & WC may consider and approve the cost estimate for the Provision of staircase in BA, BB, CB & CC type houses at NIT, Kurukshetra for an amount of Rs. 34.15 lacs.

# केन्द्रीय लोक विकाम विभाग क्रम्बाल केन्द्रीय सण्डल ४४७, सुभाष कालोनी, करनाल

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The Director, NIT, Kurukshear

Secret : Provision of staircase for reside quarters of Type BA, BB, CB & CC at NET, Kurukshetra.

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#### GOVERNMENT OF INDIA

# CENARAL PUBLIC WORKS DEPARTMENT

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Name of Work 1: Provision of stancase for reside quarters of Type BA, 309, CB & QC of Self., Knockshefter

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This preliminary estimate has Som framed by Sb. Johal Singh, Executive Engineer Karna, Cantral Division, CPWD, Narrad for Rp. 56.15.200. (ge 55) confinguaters.

#### REPORT

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C)

existing connecting corridor upto MBA/ MCA and LHC-Block in the Instructional Buildings at NIT, Kurukshetra.

The above mentioned work was placed before the High Power Committee in its meeting held on 01.10.2012. Being the essential requirement of the work, the committee recommended for approval and same was approved by the Hon'ble Director, NIT, Kurukshetra. Executive Engineer, CPWD has submitted a cost estimate for the above work for an amount of Rs. 29.26 lacs.

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The B & WC may consider and approve the cost estimate for the above cited work for an amount of Rs. 29.26 lacs.

# करनाल केन्द्रीय **मण्डल** ४४८, सुभाष कालोनी, करनाल

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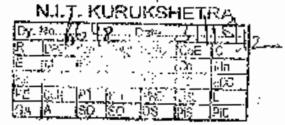
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The Director, NIT, Kuruksheura



48**9e** :

- 1. Construction of boundary wall for additional block of Health centre at NIT, Kurukshetra.
- 2. Construction of boundary wall enclosing the Girls hostel at NIT, Kartukshetra.
- A. Extension of existing corridor towards south ward upto road in the NIT campus, Kurukshetra.
- 4. Provision of 150000 litre capacity underground static water storage tank for fire lighting in Mega boy's hostel (1000 capacity) at NIT Campus, Kurukshetra.

्रविशेष्ट नार्य जा सिस्तृत प्राध्कालक जिसकी लागत रूपमे ४,23,2007 ् २०१९ २३,80,305 % समर्थ 29,26,6007 एवं रूपमे 64,29,5007 (रूपमे १ ५४ ५०० (किसिल) + रूपमे 19,75,000 (विश्वत) है, आपके कार्यालय से प्रशासनिक २,००० एवं तम्ब तंतुरी प्राप्त करने हेतू संस्थन है।

्रमण्यो अञ्चलेश है कि उपरोक्त रवीकृति जल्दी से जल्दी भेजें नार्क अग्रिज कर हो तो ज. उन्हें। वस्तकलंब की एक प्रति भी प्रशास्त्रीक स्वीकृति पत्र के साथ

 $p_{\rm tot} = (1-\epsilon) \mu \rho / \Gamma$ 

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्रमुख्यु भूक्षिकालाता, रू. ५७० व तंत्रकीय उधान्तरण्याता, को लो.जि.जि. व्हरूबीण को सुननार्थ ।

DATE THE BEN / EN EN / ACKE)

कारीपालके अभिन्यंता

# (To be issued to the client department) To 1. Extension of existing corridor towards south ward upto road in the NIT campus, Kurukshetra. 2. Provision of 150000 litre capacity underground static water storage tank for fire fighting in Mega Execution of Deposit works. Sub: boy's hostel (1000 capacity) at NIT Campus, KKR ()(Indicate name of work) The above work can be taken up by the CPWD as a Deposit work under Para 118-119 of CPWD Code, subject to the following 1. Full estimated cost of the work as worked out by CPWD including departmental charges will have to be deposited by the client department before the work is taken up for execution. No interest will be paid by CPWD to the client department for such deposits. 2. The client department should hand over vacant possession of land/site to CPWD. CPWD may, if so required, take responsibility for demolition/disposal of existing buildings/structures. 3. CPWD does not bind itself to complete the work within the estimated cost. If additional fund's are required. the same will have to be provided by the client department. Necessary revised estimate will be submitted as and when required. 4. Any dispute arising out of the operation of the contract (s) for the subject work will be subject to arbitration as provided for in the contract agreement. CPWD will defend the arbitration proceedings as best as it can and get the arbitrator's award examined by the appropriate authority. The decision of the competent authority in CPWD to accept the award or to challenge the same in a Court of Law will be binding on the client department. 5. Funds for making payment of all amounts which may be decreed by a Court of Law, Tribunal or by Award of an arbitrator in relation to the deposit work will be made available by the client department promptly irrespective of it not being a party before the Court, Tribunal or arbitrator. Such payments will be in addition to the payments made to the contractors for execution of work. 6. After receipt of A/A & E/S from the client department, the CPWD will prepare and submit various detailed architectural drawings and service plans to local bodies whose approvals are required before taking up the () construction work. These local bodies are independent organization and CPWD has no control over them. These Local bodies taken their own time for approving the Plans. The time required to get such approvals is not included in the time of construction indicated in the estimate. Although CPWD will make all efforts to get such approvals early, it may be necessary for the client department also to pursue with Local Bodies for early 7. The CPWD has no funds of its own for investing in the work. The client should, therefore, ensure that adequate funds are available with CPWD for executing the work. In case the client department fails to provide funds as per requirements, it may be necessary for CPWD to suspend/abandon the work. In such eventuality, the client department shall be solely responsible for all the consequences arising out of such stoppage/abandonment of work including claims of contractors for compensation/damages. 8. The client department will help CPWD in - a) providing site for labour huts for the contractor's labour free of cost, b) providing free access to contractor's materials and labour to the site of work. C) providing electricity connection for execution of work on payment of usual charges, and d) sanction and release of load from the concerned electricity board/authority.

concerned electricity board authority.

9. CPWD may at its discretion allow the clients to deposit the funds in installments. In such cases 33 1/3% of the estimated cost should be deposited as advance. Thereafter, expenditure incurred should be reimbursed in full through monthly bills. The initial deposit of 33 1/3% would be retained for adjustment against the last portion of the estimated expenditure.

10. In cases where funds are deposited in installments, CPWD will not be responsible for any delay, damage, stoppage of work, claims of contractors for compensation/damages etc. due to non-receipt of funds in time.

You are requested to convey acceptance of the above to enable this office to proceed further.

Yours faithfully,

Executive Engineer
Executive Engineer
Karnal Central Division,
CPWD, 448, Subhash Colony
KARNAL-132001 (Hrz)

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* · · · * · · · · · · · · · · · · · · ·	1afacitiption	Qty	Unit	Rate	Amount	DSR No.
( 1	TARTH WORK			1		
!	Farth Work in excavation by mechanical means (Hydraulic)			:	:	
11 1	I xcavator // manual means in foundation trenches or drains- mot exceeding 4.5 m in width or 10 sqm on plan) including		į			•
	dressing of sides and raining of bottoms. Lift upto 1.5 m,					
i~	a cluding getting cut the excavated soil and disposal of surplus			:		:
	excavaled soil as directed, within a lead of 50 m		:	:		
lo .	all locate of good	162.00	j	120.00	200000000	L 2.8
0	<ul> <li>Illiands et soil</li> <li>Sing available excavated earth (excluding rock) in trenches.</li> </ul>	153.00	<u>cum</u>	130.80	20012.00	+ 2.8.1
	plinity sides or foundations etc. in layers not exceeding 20cm.		i		i	
i	is depth, consolidating each deposited layer by ramming and;		i		i	
O	watering, lead up to 50 m and lift upto 1.5 m			ı	!	· . !
O.	Europhysia and Elling in shall with leaving and district force.	51.00	cum	J 83.80	4274.00	2.25
	Supplying and filling in planth with Jamuna sand under floors including, watering, ramming consolidating and dressing					
	complete.	26.00	! cum	749.30	19482 00	2.27
	Sup-Total			!	43788.00	
<u>~</u>	CONCRETE MOBK			l		4
:O	Providing and laying in position cement concrete of specified					
6)	grade excluding the cost of centring and shuttering - All work]		i	i i		
₁ ⊙ ::::::::::::::::::::::::::::::::::::	able plinth level			:		4.1
Ö	10 rtn nominal szer)	26.00	cum	3357.40	87292.00	-3 1 1D
	Providing and laying cement concrete in retaining walls, return					: !!
į.	wais, walls (any thickness) including attached pitasters,	i		i		
13-2	distamins, piers, abutments, pillars, posts, struts, buttresses,				:	1
	String or facing courses, parapets, coping, bed blocks, anchor-	į.		i į	. !	
10	blocks plain window sills, fillets, sucken floor, etc., up to floor, are tevel, excluding the cost of centering, shuttering and				,	
. —	leasting excluding the cost of dentaring, shottering and	i			:	42
17	1.2.4 (* Cement : 2 coarso sand : 4 graded stone   aggregate)	:				., 4,
ið i	29 nominominal size)	2,00	cum ;	5272.40	10545.00	4.2.3
$^{\mathrm{l}}$ O	conting and shuttering including strutting, propping etc. and					
•	a povojiká tem work fez :			:	,	4.3
$O^{-1}$	is starong walls, retorn walls, walls (any fhickness) including attached pilasters, buttacsess plinth and string courses fillets;			:		1
i	herbs and steps etc.	18.00	sqm :	285.15	5133.00	4.3.2
	Flowiding and laying clamp-proof course 40mm thick with			!		
	common concrete 1.2:4 (1 cement - 2 coarse sand : 4 graded)		:	:	;	
1	sione aggregate 12,5mm nominal size)	13.00	sem	207.55	2698.00	4.1
CX	Applying a coat of residual petroleum bidumen of grade of VG-:	!		:		
ļ,·.	10 of approved quality using 1.7kg per square metre on damp is not course after cleaning the surface with brushes and finally;					
ľ	year a piece of cluth lightly soaked in kerosene oil	!				į
		13.00	ടരുന്ന	96.65	1266.00	4 13
:	Sub-Tetal	1			105924.00	
17.5	RAMPORGED CEMENT CONCRETS	;				ēļ
100	Proceeding and laying to expection specified grade of reinforced	:	:		!	:
i -	to early conjured insoluting the cost of centring, shuffering, if some good reinforcement (All work upto partitions).				!	i
i	to coming and rendered and in the week upon particles of a					5.1
	100000 () centert 100 coorse and 3 graded stone					
	- propaga is 20 mili ripornina, size;	9.00	cum	5094-05	45894-00	5.12
	<ul> <li>sering and stattlering actualing strutting propping ctd. and in the control.</li> </ul>					, , j
	er se o <u>sal el Torra Por</u>				·	50

`O.	ാർ!സെ, beams, plinth beams, girders, bressumers and		i		:	:
Sec.	Fortilities agricing	53,00	sqm	262.25	13399.00	5.9.5
jO -	sitest reinforcement for RIG.C. work including straightening,		!			
12%	cutting, trending, placing in position and binding all complete;			, ,		
}≎ -	opto ploth level.			,		5.22
3/20	Thermo-Machanically Treated bars	9375.00	kg	32.25	583594,00	5.22.6
$Q^{\gamma}$	Reinforced cement concrete work in beams, suspended-					
io -	Roors, roots having slope upto 15" landings, balconies,				:	
$\gamma \circ$	shelves, chajjas, linlels, bands, plain, window sills, staircases;		'	:		
io -	and spiral stair cases upto floor five level excluding the cost of			. !		1
¦O -	centring, shuttering, finishing and reinforcement with 1.1%3 (1)		•			
O	sement 1% coarse sand 3 graded stone aggregate 20 mm;					
100	nominal size)	66,00	01140	=00C CO	200.42.50	1
lo -	· · · · · · · · · · · · · · · · · · ·	00.00	cum	5885.50	388443.00	5.5
100	506-fal2f			<del></del>	1120482.00	
O	FRICK WORK	!		· · .		ઘ
	turck work with consmon burnt day F.P.S. (non-modular)			;	į	
$ \Omega _{\Gamma}$	cricks of class designation 7.5 in foundation and plinth in:	· - <u></u>		i	!	6.1
	Coment mortar 1:6 (1 cernent : 6 coarse sand)	93. <b>0</b> 0	cum -	3318.55	308439,00	6 1 2
Ö	Block work with common burnt clay F.P.S. (non modular)	:	:	! ' ;		ļ
1	bricks of class designation 7.5 in superstructure above plinth					[
$Q_1$	Givel up to floor V level in all shapes and sizes in :					6.4
46 3 1	Cernetit mortar 1:6 (1 cemant : 6 coarse sand)	65.00	CUM	3876.15 i	251950 00.	642
O.	Auth fotal				560339 00	!
0.0	FLOORING				;	11
HO -	Nota stone slab flooring over 20 mm (average) thick, base laid:				· .	
	wer and jointed with grey cement sturry mixed with pigment to	:				- 1
iO -	motion the shade of the slab including rubbing and polishing-	:				-
i	complete with base of cernent morter 1: 4 (1 cement . 4,			i		į
Ю	chaise sand):			: !	!	11.26
	Thinmy thick	315.00	sqm	945.70	297896.00	11.28.1
ŀØ`	Sub-Total		-741.i.	0.13.14	297896.00	. 11.20.1
· v-x	POOFING	- :	į		. \$31.030.00	إي
<u>:</u> Q	Providing and fixing on wall face Unplasticised Rigid PVC rain-	- !			!-	'∠¦
183			i		;	
jo	water pipes conforming to IS 13592 Type A including jointing	:	!		;	ĺ
io -	with seal ring conforming to 15 : 5382 leaving 10 mm gap for			!		
	Remail expansion. (i) Single socketed pipes	47.00		· 670 000 ·		12.41
15	1 i0 mm diameter	43.00	metre	206.90	8897.00	12,41.2
127	Providing and fixing on wall face Unplasticised - PVC moulded			į		ŀ
lio -	fillings/ accessories for Uniphasticised Rigid PVC rain water					
l i``	proces conforming to 45 : 13592. Type A including jainting with	1		!		
	small ring conforming to IS , 5382 leaving 10 mm gap for	:		!		1
i`	Promat expansion	i				12,42
الر)اا	if and 107.5"	!		:		12.42.5
ji i T	i 1 t0 wm bend	28.00	each	156 95 !	4395.00: 1	12.42 5.2
İ.;;	Timixing and fixing Unplasticised -PVC gips clips of approved		'			,
· :	design to Unplasticised - PVC rain water pages by means of		:	•		
10	50x50x50mm hard wood plugs, screwed with M.S. screws of				:	
1	acquired length including culting brick work and fixing in-					
. 14	coment monar 1/4 (1 cernant 4 coarse sand) and making;				1	!
i.	ground the walk etc. complete		:		:	12 437
1.	1 () rim	28.00	each	144 60	4949. <b>0</b> 0	12.43.2
.! .	Sub-intal	20.00	00	177 04	17341.00	12.40.2
	: UNISHING				17441.00	13
1.	That in company places of a m			-		13 7
٠.	er Camera A (ac sudd	260 00	SQITE	112 60	2024/1002	
	The error range model the rough and of single or half binds.	7.00 00	who.	1 12 00	20250 00	10 7 2!
						أدور
	Control of the second of the second	160 00	S	120.00	2002 22 722	13.7
	The strength of the sold,	103 20	<u>sy</u> m	130 20	20332 05	<u> 13.2 ()</u>

10	in placing on brick work or brick flooring with cement mortar 1.3,			i	:	
	To(-med_3 fine_sand)		:			13.31
(C)	Plush - Ruled/ Struck or weatherest pointing	207 00	sgm	78.35	16218.00	
L'O	<ul> <li>Protempering with 1st quality acryllo distemper (ready mixed).</li> </ul>				:	
$\Gamma$	of approved manufacturer, of required shade and colour		!	:		
Q	cumpiete, as per manufacturer's specification.		i	: .	:	13.42
		433.00	sqm	37.35	16173.00	13,42.1
10	Finishing walls with textured extenor paint of required shade					
112			!		<u>.</u> '	13.45
0	· 1ev work (1wo or more coats applied @ 3.28 ltr/10 sqm) over				:	ľ
0	and including priming cost of exterior primer applied @:				04808.66	4 4
<u></u>	2.20kg/10 sqm Tinishing walls with Acrylic Smooth exterior paint of required:	550 <u>0</u> 0	sqm	117.70	64735.00	13.45.1
	Shade		1	:		45.15
	Sab-Totat .			: .:	183568.00	13,45
	WATER PROOFING	· -· ·		;	00,000.00	
16	Freekling and taying integral cement based water proofing			··· ·—··· ··		
0	treatment including preparation of surface as required for					
	meatment of roofs, balconies, terraces etc consisting of			: 		
	rollowing operations:				i	1
10	<ul> <li>a) Applying a slurry soat of neat cement using 2.75 kg/sqrn. of</li> </ul>				ı	
: <b>.!</b> !	centent admixed with water proofing compound conforming to	į			1	
	13, 2645 and approved by Engineer-in-charge over the RCC				į.	
M La	siab including adjoining walls upto 300mm height including			. !		f
	tieaning the surface before treatment	ļ				
	to Eaving brick bats with mortar using broken bricks/brick bats,	!				
÷ I	75 mm to 115mm size with 50% of cement mortar 1.5 (1:					ļ
1 O	rement 5 coarse sand) admixed with water proofing.	:		:	·	i
id in	compound conforming to IS : 2645 and approved by Engineer- in charge over 20 mm thick layer of coment mortar of mix 1:5			:		
	content 5 coarse sand ) admixed with water proofing	!		į		
	. Anoping conforming to IS : 2645 and approved by Engineer-	į			:	F
n (~	anothering to required slope and treating similarly the adjoining	- 1				
Hio.	walls upto 300 arm height violating rounding of junctions of		'			
	walls and slabs:			i	i	
	a. After two days of proper curing applying a second coal of				'	ļ
I wi	coment sturry using 2.75kg/ sqm of cement admixed with, wate/	:		:		22.7
152	<ul> <li>With average thickness of 120mm and minimum, thickness at;</li> </ul>					
148	kbuma as 65 mm	281.00	sqm -	786,70	221063.00	22.7.1
1.	Sob-Total		:		221063.00.	į
40				:		!
. ! !	Joial				2551431.00	į
$\mathbb{H}^{O}$	And Cost triclex @ 4%				102057.00	
11,	Listal And Continuous G-6%			!	2653488,00	i
; :'	Alfd Confingencies @6% Final			<u>i</u>	132574.00 2786162.00;	j
! 11 .	жиd Labour Cess @1%			- :	27882.00	
	Tigal	:		-	2814024.00	ļ
, 11 ·	A II VAT @4%	:			112661.00	:
i	Corand Total				2926585.00	
. •			:	<del></del>		
٠.	Say Rs, 29.26,600/-					
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	9 <u>1</u>	<u> </u>		cutive Eng		i
	PED	.7		u Central D		
		<u>·</u>	<u></u>	PWD Kam	<u>'fii </u>	

Item No. 16.14 To consider & approve the Cost Estimate for Provision of DG power backup at various locations in the Institute covering instructional buildings and related facilities at NIT, Kurukshetra.

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The above mentioned work was placed before the High Power Committee in its meeting held on 01.10.2012. Being the essential requirement of the work, the committee recommended for approval and same was approved by the Hon'ble Director, NIT, Kurukshetra. Executive Engineer (Elect.), CPWD has submitted a cost estimate for the above work for an amount of Rs. 241.83 lacs.

The B & WC may consider and approve the cost estimate for the above cited work for an amount of Rs. 241.83 lacs.

<b>\</b> _/			
0	State: Harya Branch: E&M		Division: Karnal Central Elect. Divn.Karnal Sub-Division: Karnal Central Elect. Sub-Divn
0	Estimate No.		
() ()	Name of Wor	k: Prov	viding D.G Sets for Entire Academic area at NIT Kurukshetra.
() () ()	Engineer(Electincluding 3%		This Preliminary Estimate has been framed by Er. Narender Kaushal, Executive nal Central Elect. Division, CPWD, Karnal for the probable cost of 2,41,82,750/encies.
0			REPORT
() () () ()	History:	3% co dated a supply	estimate has been framed to cover the probable cost of `2,41,82,750/- including antingencies for the above noted work in accordance with the letter No. CC/220/6906 B.10.12 from Chairman (E, C&EM) NIT Kurukshetra for provision of D.G Set Backup for Academic area. Accordingly this Preliminary Estimate has been prepared for a Administrative Approval & Expenditure sanction of the Competent Authority.
(i) (i) (i)	Design & Sco	a)	The following provisions have been kept in this estimate: Two Nos D.G Sets of 380 KVA Capacity will be installed near Sub-Station No.1 to cater the load of various buildings like MBA/ MCA Block, Civil Engg. Deptt, Mechanical Engg. Deptt. Lecture Halls and Workshop etc.
<ul><li>O</li><li>O</li><li>O</li></ul>		b) b)	One No D.G Set of 750 KVA and One No. DG Set of 380 KVACapacity will be installed near Sub-Station No.III to cater the load of various buildings like CCN Deptt Electronics & computer Science Deptt., Library Building, Electrical Engg. Deptt. Old Admn. Block, Guest House & Health Centre etc. 2 x 3½ x 300 sq.mm XLPE insulated PVC sheathed Al. cond. cable will be laid
() () ()		c) d)	between DG set of 380 KVA at Sub-Station No.I & III to share the load during any breakdown.  Two Nos Essential Supply Panel for connecting essential load  Four sets of Gel-Chemical earthing for each D.G Set including laying of 25mm x  5mm GI strip in pipe/ on surface as per site requirement.
( <u>)</u>	Method:		Through Contract
0	Rates:		Schedule Rate/ Market Rate Items
	Time:		6 Months after getting A/A & E/S
0	Cost:		2,41,82,750/- including 3% contingencies

Executive Engineer (E)
Karnal Central elect Division
CPWD, Karnal

( :

Load which is to be connected to 2 Nos. D.G. Sets of 380 KVA  (Near Sub-Station No. 1)						
1	MBA / MCA Block	80	kw			
2	Civil Engg. Deptt.	80	KW			
3	Mechanical Engg. Deptt.	80	KW			
4	12 Nos Lecture Hall	40	KW			
5	Workshop	90	KW			
		<del>and a second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of</del>				
		370.00	KW			
<u></u>	Load which is to be connected to and 1 No. D.G. Se	et of 380 KVA	s of 750 KVA			
·		et of 380 KVA				
1	and 1 No. D.G. Se	et of 380 KVA tion No. 3)				
1 2	and 1 No. D.G. Se (Near Sub-Stat	et of 380 KVA tion No. 3)				
	and 1 No. D.G. Se (Near Sub-State CCN Deptt.	et of 380 KVA tion No. 3) 60	KW			
2	and 1 No. D.G. Se (Near Sub-State  CCN Deptt.  Electronics Deptt.	et of 380 KVA tion No. 3) 60 120	KW KW			
3	and 1 No. D.G. Se (Near Sub-State CCN Deptt.  Electronics Deptt.  Computer Engg. Deptt.	60 120 100	KW KW			
2 3 4	and 1 No. D.G. Se (Near Sub-State CCN Deptt.  Electronics Deptt.  Computer Engg. Deptt.  Library	60 120 100 80	KW KW KW			
2 3 4 5	and 1 No. D.G. Se (Near Sub-State  CCN Deptt.  Electronics Deptt.  Computer Engg. Deptt.  Library  Electrical Engg. Deptt.	60 120 100 80 80 80	KW KW KW KW			
2 3 4 5 6	and 1 No. D.G. Se (Near Sub-State  CCN Deptt.  Electronics Deptt.  Computer Engg. Deptt.  Library  Electrical Engg. Deptt.  Old Admn. Building	60 120 100 80 80 140	KW KW KW KW KW			

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:	PRELIMINA	RY ESTI	MATE			
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Neme	of Work! Providing D.G Sats for Entire Academia area	at NIT F	LL	intro.	L	'
٠.	1		r			
3.No.	Description of Item	Qty.		Rate	Unit	Amount
: <del>1</del>	Supplying, installation testing and commissioning of tollowing capacity Selent Type DG set having Engine mounted instrument panel, synchronous alternator, in built fuel tank, exhaust system, base frame & toundation, 24 V D.C starting system complete with AMF Panel having contactors, MCCB's, Battery charges at complete as required.				r ! !	       
-	a) 380 KVA	3 <u>.</u>	   <u>  5</u> 415	38000000.00	sel	11400000.00
· ·	b) 750 KVĀ	i	<u>set</u>	7500000.00	 _se! .	7500000.00
z    -	Supplying and laying of 3½ x 300 eq.mm XLPE insulated PVC sheathed Aluminium conductor cable of 1.1 KV grade as required.	1600	mtrs.	185 <b>0</b> .00	ùējie	2 <u>960000.00</u>
· ·	Supplying, installation, lasting & commissioning of Essential Supply panel complete with ACB's/ MCCB's & other accessories including connections etc. as required.	2	1405	\$00000.00	cach	1000000.00
4	Providing and loong of Gel-Chemical earthing complete as required.	 . <u>16</u>	 sels	<u> </u>	 \$ <u>e</u> l	576200.00
6.	Providing and fixing 25 mm X 5 mm Gl strip in 40mm dia Gl pipe from earth efectivate as required.	100	<u>mlra</u>	<u> 36</u> 4.00	· wite !	36400.00
j6	Providing and fixing 25 mm X 5 mm GI strip on audace or in recess isolading connections etc. as required	50	mbrs	120.00	metre	6000 00
					TOTAL	23478400.00
		. 1	A <u>đ</u> đ ço	rungencies 😥 33	GTOTAL	704352.00

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EXECUTIVE ENGINEER (E). KARNAL CENTRAL ELECT DIVISION, GPWD, KARNAL

G.TOTAL

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24182752.00

24182750.00

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DG power backup in boys & girls hostels at NIT, Kurukshetra. The above mentioned work was placed before the High 0 Power Committee in its meeting held on 01.10.2012. Being the essential 0 requirement of the work, the committee recommended for approval and same was approved by the Hon'ble Director, NIT, Kurukshetra. Superintending 0 Engineer, CPWD has submitted a cost estimate as under: 0 Providing D.G. power backup sets for various Boys hostel (i) 0 1 to 9 at NIT, Kurukshetra for an amount of Rs. 2,30,44,190/-. 0 Providing D.G. power backup sets for various Girl Hostels (ii) for an amount of Rs. 89,74,390/-0 0 The B & WC may consider and approve the cost estimate for the above works for an amount of Rs. 230.44 lacs & 89.74 lacs respectively.  $\bigcirc$ 0  $\odot$  $\bigcirc$ 0

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भारत सरकार केन्द्रीय लोक निर्माण विभाग अधीक्षण अभियंता (वैधुत) चण्डीगढ़ केन्द्रीय वैधुत परिमडंल, केलोनिवि, केन्द्रीय सदन, सैक्टर—9, चण्डीगढ़ दूरभाष एवं फैक्स सख्यां: 0172—2740413, दूरभाष:—0172—2741778



GOVT OF INDIA

CENTRAL PUBLIC WORKS DEPARTMENT

Superintending Engineer(Elect),

Chandigarh Central Elect Circle, CPWD, Kendriya Sadan, Sector-9, Chandigarh Phone & FAX No . 0172-2740413,

Phone:-0172-2741778

दिनांक:- 9/11/2012.

संख्यां-23(130)/CCEC/2012/ 4 9

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The Chairman (I/C E&M) 1st floor, Admn, Block, NIT Kurukshetra.

विषय:-

Preliminary Estimates for providing DG Sets for various Hostels at NIT Kurukshetra.

संदर्भ:--

Letter No. CC/ dated 08.11.2012

With reference to your above referred letter please find enclosed herewith Preliminary Estimates of following works to get the administrative approval and expenditure sanction of the competent authority.

Sr. No	Name of Work	Amount
1	Providing D.G. Sets for various Boys hostel 1 to 9 at NIT Kurkshetra.	Rs. 2,30,44,190/-
2	Providing D.G. Sets for various Girls Hostel A, B & C at NIT Kurkshetra.	Rs. 89,74,390/-

Encl: - As above (2 Nos. PE)

अधीक्षण अभियन्ता(वै०) चण्डी० केन्द्रीय वैद्युत परिमण्डल, के०लो०नि०वि, सै०–९ए चण्डीगढ़।

Copy to:-

1. The Executive Engineer (E), Karnal Central Electrical Division, CPWD, 22A, Indira Colony, Karnal-132001 for information with Encl:- As above (4 Nos.)

अधीक्षण अभियन्ता(वै०)

# CENTRAL PUBLIC WORKS DEPARTMENT

State: Haryana Branch: E&M Division: KCED Sub-Division: KCESD

Estimate No.

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Name of Work: Providing D.G. Sets for various Boys hostel 1 to 9 at NIT Kurkshetra.

This Preliminary Estimate has been framed by Er. Narender Kaushal, Executive Engineer (Elect.), Karnal Central Elect. Division, CPWD, Kernal and processed in the office of Superintending Engineer (E), Chandigarh Central Electrical Circle, CPWD, Chandigarh for the probable cost of Rs. 2,30,44,190/- including 3% contingencies.

# REPORT

History:

This estimate has been framed to cover the probable cost of Rs. 2,30,44.190/-including 3% contingencies for the above noted work in accordance with the letter No. CC/ dated 8.11.12 from Dean (Estate) for providing DG set at various hostels at NIT Kurukshetra. Accordingly this Preliminary Estimate has been prepared for obtaining Administrative Approval & Expenditure sanction of the Competent Authority.

<u>Design & Scope:</u> The following provisions have been kept in this estimate:

- a) 2 Nos. 160 KVA DG sets will be installed near sub station No. 2 for Boys Hostels No. 1 to 6 and 2 Nos. 320 KVA DC cots will be installed riear Maga-Boys Hostel for Boys Hostels No. 7 to 9.
- b) LT cubical panel and inter connected LT cables for above DG sets.
- c) LT cable to hostel No. 1 to 9 from DG sets.
- Segretion of essential and non-essential supply load Inside the boys hostel no. 1 to 6.
- e) Provision of KWH meter for warden residence.
- f) Construction of LT panel room for installation of LT panels.

Method:

Through Contract

Rates:

Market Rate Items

Time;

6 Months after getting A/A & E/S

Cost:

Rs. 2,30,44,190/- including 3% contingencies.

Executive Engineer (E) P Chandigarh Central Elect. Circle, CPWD, Sec-9A, Chandigarh Superintending Engineer (E) Chandigarh Central Elect. Circle, CPWD, Sec-9A. Chandigarh

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Name of work:- Providing D.G. Sets for various Boys hostel 1 to 9 at NIT Kurkshetra.

SN	DESCRIPTION	Qty	Rate	Unit	Amount	REMARKS
				-		
1	SITC of DG Sets of following					
	capacities :-					
a)	160KVA	2 Nos	1850000.00	Each	3700000.00	MR
b)	320 KVA	2 Nos	3996000.00	Each	7992000.00	MR
2	SITC of cubical type LT panel	2 Jobs	918000.00	Each	1836000.00	MR
3	SITC of UG Cable		· ·			
a)	3.5X400 sq mm (for inter					
	connection between DG Sets )	600 MTR	2500.00	Mtr	1500000.00	MR
b)	3.5X120 sq mm (for various bldgs				1.	
	from DG Sets )	1400 MTR	1100.00	Mtr	1540000.00	MR
4	Segerration of ESS and non-ESS		·			
	loads inside the Boys hostel No 1					·
	to 6	6 Jobs	800000.00	Each	4800000.00	MR
5	Provision of KWH meter for					
	wardern residence inside hostel		'			·
	along with mounting board etc.	9 Jobs	5000.00	Each	45000.00	MR
6	C/o LT panel room of about 6/4					
	meter	2 Jobs	480000.00	Each	960000.00	MR
		*. *				1
	TOTAL:				22373000.00	
	Add contingencies @		3%		671190.00	
	G. TOTAL:				23044190.00	
	•		SAY	Rs	23044190.00	

Assistant Engineer (E)P
Chandigarh Central Electrical Circle
CPWD, Chandigarh

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Executive Engineer (E)P
Chandigarh Central Electrical Circle
CPWD, Chandigarh

Superintending Engineer(E)
Chandigarh Central Electrical Circle
CPWD, Chandigarh

CENTRAL PUBLIC WORKS DEPARTMENT Division: KCED State: Harvana Sub-Division: KCESD Branch: E&M Estimate No. Name of Work: Providing D.G. Sets for various Girls Hostel A, B & C at NIT Kurkshetra.. This Preliminary Estimate has been framed by Er. Narender Kaushal. Executive Engineer (Elect.), Karnal Central Elect. Division, CPWD, Karnal and processed in the office of Superintending Engineer (E), Chandigarh Central Electrical Circle, CPWD, Chandigarh for the probable cost of Rs. 89,74,390/- including 3% contingencies. REPORT **History:** This estimate has been framed to cover the probable cost of Rs. 89.74.390/- including 3% contingencies for the above noted work in accordance with the letter No. CC/ dated 8.11.12 from Dean (Estate) for providing DG set at various hostels at NIT Kurukshetra. Accordingly this Preliminary Estimate has been prepared for obtaining Administrative Approval & Expenditure sanction of the Competent Authority. 0 Design & Scope: The following provisions have been kept in this estimate: 2 Nos. 160 KVA DG sets will be installed near Girls Hostel for Girls Hostel No. a) A to C.  $\odot$ b) LT cubical panel and inter connected LT cables for above DG sets. LT cable to girls hostel No. A to C from DG sets. c) Segritation of essential and non essential supply load inside the girls hostel no. d) A. e) Provision of KWH meter for warden residence. Construction of LT panel room for installation of LT panels. f)

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Rates: Market Rate Items

Method:

Time: 6 Months after getting A/A & E/S

Cost: Rs. 89,74,390/- including 3% contingencies

**Through Contract** 

Executive Engineer (E) P Chandigarh Central Elect. Circle, CPWD, Sec-9A, Chandigarh Superintending Engineer (E) Chandigarh Central Elect. Circle, CPWD, Sec-9A, Chandigarh

# **ABSTRACT OF COST**

Name of work:-Providing D.G. Sets for various Girls Hostel A, B & C at NIT Kurkshetra.

SN	DESCRIPTION	. (	Qty	Rate	Unit	Amount	REMARKS
1	SITC of DG Sets of following						i
	capacities :-						
a)	160KVA	2	Nos	1850000.00	Each	3700000.00	MR
2	SITC of cubical type LT panel	1	Jobs	918000.00	Each	918000.00	MR
3	SITC of UG Cable `						
a)	3.5X400 sq mm (for inter	<i>;</i>			-		
	connection between DG Sets )	900	MTR	2500.00	Mtr	2250000.00	MR
b)	3.5X120 sq mm (for various bldgs						
	from DG Sets )	500	MTR	1100.00	Mtr	550000.00	MR
4	Segerration of ESS and non-ESS		,				
	loads inside the Girls Hostel A						*
		. 1	Jobs	800000.00	Each	800000.00	MR
5	Provision of KWH meter for					The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s	
	wardern residence inside hostel						
	along with mounting board etc.	3	Jobs	5000.00	Each	15000.00	MR
6	C/o LT panel room of about 6/4				-		
	meter	1	Jobs	480000.00	Each	480000.00	MR
							· .
	TOTAL:				1	8713000.00	
	Add contingencies @			3%	• •	261390.00	
	G. TOTAL:					8974390.00	
				SAY	Rs	8974390.00	

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Assistant Engineer (E)P
Chandigarh Central Electrical Circle
CPWD, Chandigarh

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Executive Engineer (F)P
Chandigarh Central Electrical Circle
CPWD, Chandigarh

Superintending Engineer(E)
Chandigarh Central Electrical Circle

CPWD, Chandigarh

# ()٠ ۲ NATIONAL INSTITUTE OF TECHNOLOGY (INSTITUTION OF NATIONAL IMPORTANCE) KURUKSHETRA O NO: CC/ Date: 08-11-2012 O To, 0 Executive Engineer (Electrical), Kamal Central Electrical Division, CPWD-22A, Indira Colony, Kamal. Preliminary estimate for providing DG Sets at various hostel at NIT Subject: Kurukshetra. 0 Please send the preliminary estimate for providing DG sets at various hostels at NIT Kurukshetra. The list of light load of the hostel which is to be connected to $\odot$ the DG set is attached. $\circ$ Dean (Estate) Copy to: 0

Prof-In-Charge (EM) for kind information please

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# (INSTITUTION OF HATIONAL IMPORTANCE) KURUKSHETRA

# Detail of Light Load of Hostels.

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Sr. No.	Hostel No.	Light Load
1.	Boys Hostel no.1	40 KW
2.	Boys Hostel no.2	40 KW
3.	Boys Hostel no.3	40 KW
4	Boys Hostel no.4	40 KW
5.	Boys Hostel no.5	40 KW
. 6.	Boys Hostel no.6	40 KW
7,	Boys Hostel no.7	100 KW
8.	Boys Hostel no.8	100 KW
9.	Boys Hostel no.9	100 KW
10.	Girl Hostel A	40 KW
11.	Girl Hostel B	70 KW
12.	Girl Hostel C	100 KW

newly Constructed Graded seating arrangement for 2000 persons in Open Air Theatre at NIT, Kurukshetra.

The above mentioned work was placed before the High Power Committee in its meeting held on 01.10.2012. Being the essential requirement of the work, the committee recommended for approval and same was approved by the Hon'ble Director, NIT, Kurukshetra. Superintending Engineer, CPWD has submitted the cost estimate for the above work for an amount of Rs. 305.60 lacs.

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The B & WC may consider and approve the cost estimate for the above cited work for an amount of Rs. 305,60 lacs.

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Q	विषयं: -	Covering of newl	ly constructed o	pen air theatre	at NIT Ku	rukshetra	
0		including providi	ng and installati				<b>\$</b>
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CHO 19<del>भाग</del> क्साग केव्हीय मण्डल क्षरहेनाल सुभाष कालों नी . करनाल 448,

रांख्या- २०(१४२),थो.शा./क.के.सं/२०।१/५० ४३

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अधीक्षण अभियंता, चण्डीजढ केन्द्रीय परिअण्डल, के.लो.जि.वि. वण्हीसका

Covering of newly constructed open air theatre at NIT, Kurukshetra. विषयः :

अंदर्भ :

The Chairman (E. C & EM), NIT, Kurukshetra letter's No. CC/1575/6593 dt 21.11.2011.

प्राक्कनम् 🦠 जिसकी 👚 लागत प्रारक्षिशक उपरोक्त कार्ष का १,७७,७७,७०७- है अपिके कार्यातम को सम्बन्धित विभाग से प्रशासनिक स्वीकृति एव अंजुरी प्राप्त करने हेतु संलज्न है।

प्राक्कलन दो प्रतियों जें। 'ছলৈয়ল :

> कार्यपासकः अक्तियन्ता करनाल केन्द्रीय मण्डल. के सो नि वि, करभास।

प्रतिलिपिः

The Chairman (E\C & EM), NIT, Kurukshetra for information please.

2. कार्यपालक आंश्रेतिका (थै.), करनाल केन्द्रीय विद्युत लव्हल, के.लो.बि.बि. करवाल िक्वल कार्य के अनुमान सहित। आपसे अनुशेष है कि उक्त कार्य का विध्वत प्रारक्कलन बनाकर संबंधित सक्षम अधिकारी को भेजें।

3 शहायक अभियन्ता, कुरुक्षेत्र केन्द्रीय उप-गण्डल, के.लो.नि.चि. कुरुक्षेत्र को सूचनार्य।

कार्यपालक

BAFER

# GOVERNMENT OF (NOIA CENTRAL PUBLIC WORKS DEPARTMENT

STATE: HARYANA

DIVISION: KARNAL CENTRAL

BRANCH: B & R

Name of Work:

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Covering of newly constructed open air theatre at NIT Kurckshetra including providing and installation of Electrical fittings and services with equipments.

MAJOR HEAD

MINOR HEAD

DETAILED HEAD

This preliminary estimate framed by Er. Iqbal Singh, Executive Engineer, Karnal Central Division, CPWD, Karnal and processed by Sr. Chander Mohan Malhotra, Executive Engineer (P), Chandigarh Central Circle, CPWD, Chandigarh for probable cost of Rs 3,05,69,700/-including 3% contingencies.

History :

This preliminary estimate amounting to Rs.3,05,60,700/- i/c 3% contingencies has been framed to cover up the probable cost of above mentioned work for accord of A/A & F/S of the competent authority. The requisition for the above said work has been received from Client Department vide letter No. CC/1575/6593 Dt. 21.11.2011

Design & Scope:

. Following provision has been made in the estimate:

(A) For civil Work:-

- Providing &Fixing colour coated galvanized steel sheet moting over open air theater as per drg sketch attached.
- Finishing steel work with Epoxy paint.
- Provision of 15000 lt water storage tank.
- (B) For electrical work
- (a) 250W Metal Halide and CFL fittings in the ceiling/ roof.
- (b) Wiring for Light/ Power Plugs/ OPS points.
- (c) Distribution boards & cables
- (d) Stage Lighting & UPS.
- (e) ETAC System with ducting.
- (f) Air circulation fans.
- (g) 20 KVA on line UPS (For Audio/ Video System).
- (h) Manual Fire Alarm System.
- (i) Down Comer System (For Fire Fighting)
- PA System comprising of Amplifiers, Speakers & Subwoofers etc.
- (k) Video system comprising of OLP Projector, Motorised Screen etc.

Specification. As per CPWD Specification 1996 vol 1 to VI with upto date correction slip.

WC Shall be met out of contingencies.

T & P Shall be arranged by the contractor

Land Available

Rate As per DSR 2007 (Reprint 2010) & Market rate

Method By contract offer self-oftender.

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Time 9 months after receipt of A/A &E/S.

Cost Rs 3,05,60,700/- i/c 3% contingencies.

عو/وارد مسلمه). Textall Environeer (P) I

ARSISTANT ENGINEER (P) III CHANDIGARH CENTRAL CIRCLE, CPWD, CHANDIGARII... EXPECTIVE ENGINEER (P)
CHANDIGARH CENTRAL CIRCLE,
CPWD, CHANDIGARH.

	GENERAL ABSTRACT		
uruks	f work :- Covering of newly constructed oper hetra including providing and installation of I		
ervice	s with equipments.		
S.No.	Description of items		Amount
_ 1 _	Civil Work ( Annexure-A)		18853900.00
2	Electrical Work ( Annexure B)		11968860.00
	ļ. · · · · · · · · · · · · · · · · · · ·	Total :-	30560700.00
		D Virgilia	
		xecutive Engir handigam Cer	leer (P)
		PMO Chandig	
	Preliminary estimate amounting to Rs.3,05,60,700/- (Rs. hundred only) is submitted to client department for accounthority.		
 	+ · · · · · · · · · · · · · · · · · · ·		
·····	Superintending Engineer Chandigarn Central Circle CPWD Chandigarh.		

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O .		ABSTRACT OF			. <b>.</b>	
Name		Covering of newly constructed open air t	heatre at NIT	Kuruksi	hetra.	
Cork	:	i				
ċ۱		SCHEDULE OF WORK			I	
3. No	Item Co	Description of Items	Qty	Rate	Unit	Amount
$\mathcal{O}$	10	STEEL WORK		i	Ţ · — · –	
2,1	10.16	Steel work in built up tubular trusses				ļ · - · · -
$\circ$		including curting, hoisting fixing in position		i	i	į
(')		and applying a priming coat of approved		İ	i	
		steel primer, welded and bolted including				
$\odot$		special shaped washers etc, complete.		1		!
<b>,</b> ,		i l				
ν .	:					
01.1	10,16.1	Hot finished welded type tubes	171400	0.5		
<u> </u>			171133	61.5	kg	10524680
Q.	12	ROOFING			i	
Ζ' -	NS	Providing and fixing colour coated				
0	:	galvanized steel sheet roofing having				
Ò –	:	maximum pitch of 196 mm c/c & minimum		1	!	
<u>,                                     </u>	i	30mm crest depth in length as per			i	
$\circ$	1	requirement and fixing with polygagg coaled		i	· ·	¥r÷
rs.		J or L hooks, bolls and nuts 8mm dia. G.I.		-	· .	:
		plain and bitumen washers or with self		i	ļ	! .
Ō		drilling fastener and EPDM washers etc.		i		;
· ·		complete excluding the cost of publics.		İ	 	i 1
•		rafters and trusses: corrugated sheets and		: I		:
	:	including cutting to size and shape;				:
		wherever required(The fed material is to be manufactured out of 0.50mm (TCT)				: !
()		Itotal coated thickness with 18-20 microns		:		!
J-,	ı	lop coat over 5 microns primer and 8-10.				!
}-'		imicron alkyd backer, 550 Mpa yield		i		i l
'n	:	strength with zinc-aluminium alloy of AZ-		I		!
		150. The sheet shall have a hot dip				
. /		metallic zinc-aluminium alloy coating of				
		'zinc (45%), aluminium (55%) with total!		¦ '		ļ
		mass coating of 150gsm/sgm on both				
i		sides).		i I ı		ļ f
		313GS).				
l			3710	628 68	Şqm	2332403
*?	13	FINISHING				
a.1	13 52	Finishing with Epoxy paint (two or more)				
		coats) at all locations prepared and applied			;	j
		as per manufacturers specifications			. :	ì
		uncluding appropriate priming coat i		·		Į
		preparation of surface, etc. numpleto!			i	1
i						
1 -	12 62 4	On steel work		;		
'	3.32.1	On sice work	3710	76.25	sgin	279178
						* ** F :

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S. No	Item Co	Description of Items	Qty	Rate	Unit	Amount
	18	WATER SUPPLY		1	- ''''	
(81°)	18.48	Providing and placing on terrace (at all			<del></del> †	
	!	floor levels) Polyethylene water storage		İ	<u> </u>	
io :		tank ISI:12702 marked with cover and			i :	
0	i	suitable locking arrangement and making			i İ	
Ν.	•	necessary holes for inlet, outlet and		!	: j	
$\dot{\mathcal{O}}$	i	'overflow pipes but without fittings and the phase support for tank.		I		
- 人「	İ	base support for tank.			. i	
7 4	ļ —.	<u></u>	15000	5.25	per litre	<b>7<u>8</u>75</b> 0
P - 4	<u> </u>	TOTAL			├- ·∔	13215011
$\Diamond$ ""	•	Add: 37% Cost Index on all except item		<u></u>		
8		No. 2,1	10882608			4026565
Ĭ,	;	Total				_
$Y \cap$	]	Add: 3% Contingencies			·	<u>17241578</u>
(P)	ļ . <b>_</b>	4			<u> </u>	<u>517247</u>
Y .	I	Total			i	17758823
Υ΄ :	: ·- ·· <del>-</del> ·	Add: 1% Labour Cess				
Q !		Total			<del>:</del>	177588
φ. :			!		:	17936411
À		Add: 4% Vat		- 1		717456
Ϊ	•	Grand Total				
Ç		Say Rs. 1,86,53,900/-	· - ··· i	·- ·— ‡	—··· =	18653867
Ò			-·· -·	¦	- · :	- — ·
人 :			–	·	····//:	
Ŷ					1111	
Ģ.,		1177/a		NAID	311	
اح.		Assistant Engineer (P)III	Executi	ve Engine	эет (Р)	
ì		Chandigarh Central Circle		rh Centre		
: "\		¡CPWD Chandigarh	CPW[	2 Chandie	garth. í	

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### PRELIMINARY ESTIMATE

Manie of Work: Covering of Newly constructed Open Air Theatre at NIT, Kurukahetra, (SH: Providing and Installation of Electrical fittings and services with equipments). (_)<u>No.</u> Description of Item Rate Unit Amount |Sub-Head-! (@cctrical) Providing 260 W Motal Halide and CFL fitting in the ceiling/ 30!Nos <u>izoof</u> as re**qd**i 15000.00 Winng for hight pointy power plugs to UPS wining etc. with PVC copper conductor wires in conduit/armoured copper conductor cable 70 Nos 3000,00 21(6000 00 820% Providing distribution board & cables etc. as required. 300000.00 1 Job Job 300000.00 Total of Sub Head-959000,00 Sub-Head-II (Stage Lighting & UPS ) Provision of stage lighting, control panel, cable etc. as reguired. de£ 950000.**0**0 Jeb 950000.00 Providing 20 KVA on line UPS complete as required. ΩZ 880000.00 850000.CO हरूब ()Total of Bub Head-II 16000000.00 Sub-Heart-Ii (Air Circulation System) Providing Aircirculation fans etc. 1000000.00 Jcb 100000 00 roysting ETAC System with ducting etc 4 Nos 550000.00 Earth 2200000.00 ()Total of Sub Head-III' 2300000.00 SubHead-IV (Fire Alarm & Fire Pighting System) Providing Manual Fire Alarm System, 1 Job 600000,00 8000000 00 Providing downcomer system Including piping, valves, vakt hydrants and comps etc. Job 20000000.00 Total of Sub Head-IV 26000000.00 SubHoad-V (Audio/ Video System) Providing PA System I/o Amptriers, speakers, subwoofers, equipments rack and necessary cabling etc. complete 1 job 1605000.00 job 16000000000 Providing DLP Projector, motorised screen and necessary 2500000000 cabling also complete 28000000.00 Total of Sub Head-V 4100000.00

### Mote:

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 a) Cost of 15000 Lits terrance tank to be included in claim work.

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ABSTRACT OF COST		
		÷·
O Sub-Head-I (Electrical)	Rs.	960000.00
Sub-Head-It (Stage Lighting & UPS	Rs.	1800000.00
O Scb-Head-ill (Air Circulation System)		2300000 00
O Sub-Head-IV (Fire Alarm & Fire Fighting System)	Rs.	2500000.0n
O SubHead-V (Audin/ Video System)		4100000 CO
	Add 3% continuencies Rs.	11560000.00 1
O		346800.00
	G. Yotal Rs.	11906800.00

Chandigath Central Electrical Circle-r

CPWD, Chandigarh.

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Executivo Engineer (E)P

Chandigarh Central Electrical Circle-1 Chandigath Cent Elect. Circle-1 CPWO, Chandigarti.

SugarAtending Engineer (€)

CPIVD, Chandigan,

# Appendix-50 (Reference - Para 3.6.3) LETTER OF ACCEPTANCE OF DEPOSIT WORKS (To be issued to the client department)

τ.	तहा । ज्यानसूच्या । -	
	<u>्रात्र्यः ज्ञापिक क्षित्र्यात्त्रेष</u> ः । भोत्रा <u>न्य त्र्याप्य</u> ात्त्रे	
	of theory	. فهود
<u>ያካ</u> ሉ.	Execution of Deposit works. 3/2/20 0.172 P. T. P.	
	(Indicate name of work)	

The above work can be taken up by the CPWD as a Deposit work under Para 118-119 of CPWD Code, subject to the following :

 Full estimated cost of the work as worked out by CPWO including departmental charges will have to be deposited by the client department before the work is taken up for execution. No interest will be paid by CPWO to the client department for such deposits.

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- 2 The client department should hand over vacant possession of land/site to CPWD. CPWD may, if so required, take responsibility for demolition/disposal of existing buildings/structures.
- 5. CPWD does not bind itself to complete the work within the estimated cost. If additional fund's are required, the same will have to be provided by the client department. Necessary revised estimate will be submitted as and when required.
- J. Any dispute arising out of the operation of the connect (s) for the subject work will be subject to arbitration as provided for in the contract agreement. CPWD will defend the arbitration proceedings as best as it can and got the arbitration's award examined by the appropriate authority. The decision of the competent authority in CPWD to accept the award or to challenge the same in a Court of Law will be binding on the client department.
- Funds for making payment of all amounts which may be decreed by a Court of Law, Tribunal or by Award of an arbitrator in relation to the deposit work will be made available by the client department promptly irrespective of n not being a party before the Court, Tribunal or arbitrator. Such payments will be in addition to the payments made to the contractors for execution of work.
- After receipt of A/A & E/S from the client department, the CPWD will propose and submit various detailed architectural drawings and service plans to local bodies whose approvals are required before taking up the presentation work. These local bodies are independent organization and CPWD has no control over them. These local bodies taken their own time for approving the Plans. The time required to get such approvals in not included in the time of construction indicated in the estimate. Although CPWD will make all efforts to get such approvals early, it may be necessary for the client department also to pursue with Local Bodies for early approval.
  - The CPWO has no funds of its own for investing in the work. The client should, therefore, ensure that adequate times are available with CPWD for executing the work. In case the client department fails to provide funds as per requirements, it may be necessary for CPWD to suspend/abandon the work. In such eventuality, the client organization shall be solely responsible for all the consequences arising out of such stoppage/abandonment of work moduling claims of contractors for compensation/damages.
- (i.e. enemy department with help CPMD in a) providing site for labour thirs for the contractor's labour five of every his providing free access to contractor's materials and labour to the site of work. C) providing efection, ensure their for execution of work on payment of usual charges, and d) sanction and release of load from the (rescented electricity board/authority).
- 6 CPA(1) may at its discretion allow the thems to deposit the funds in installments. In such cases 33 (/3% of the estimated cost should be deposited as advance. Thereafter, expenditure incurred should be reimbursed in full through resultily bills. The initial deposit of 23 1/3% would be retained for adjustment against the fast poniminar the estimated expenditure.
- 6. In cases where finds are deposited to installments, CPMD will not be responsible for any detay, daming a prompted of work, claims of contractors for compensation/damages etc. due to note-receipt of funds in time.

 $\mu_0$  and real words to convex an explaince of the above to enable this office to proceed further

Yours faithfully,

Executive Engage

Item No. 16.17

To consider & approve the Cost Estimate for Provision of lifts for persons with disabilities (PwD) at various locations in the Institute.

The above mentioned work was placed before the High

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Power Committee in its meeting held on 01.10.2012. Being the essential requirement of the work, the committee recommended for approval and same was approved by the Hon'ble Director, NIT, Kurukshetra. Superintending Engineer (Elect.), CPWD has submitted the cost estimate for the above work for an amount of Rs. 262.87 lacs.

The B & WC may consider and approve the cost estimate for the above cited work for an amount of Rs. 262.87 lacs.



शास्त सरम्बरं नेन्द्रीय लोक निर्माण विषया अरबीसण अभियंता (वैधुत) चण्टीगढ़ केन्द्रीय वैद्युत परिभक्षंत, केलोगिकि, नेन्द्रीय सदय, सैक्टर-१, चण्डीमक बूरभाव एवं मैक्स सर्व्याः ०१७२-२७४०४१३, दूरभाव :-0172-2741/78



GOVE OF INDIA
CENTRAL PUBLIC WORKS DEPARTMENT
Superintending Engineer (Elect),
Chandigath Central Floor Circle, CPVD,
Kendriya Sadan, Sector-9, Chandigath
Phone: & FAX No. 0172-2740413.
Phone: 0172-2741778

Τα	Chairmab(E, EM & C), National Institute of Technology,	American III	S/11/2	constitution is
Şub:	Kurukshetra.  Preilminary Estimate for the work "Provisi Kurukshetra. Estimated Cost: 26287188/-	on of lifts at vario	Lat Lac	

Ref: Your office letter no. CC/187/6141 dated 24.8.2012.

Sir,

With reference to above, please find enclosed herewith preliminary estimate for the above mentioned work. The reasons for this work have been explained in the report portion of the estimate. It is requested to convey the Administrative Approval & Expenditure Sanction of the competent authority. CPWD shall take-up the work after receipt of AA&ES and deposit of funds from NIT, Kurukshetra.

Encl: Preliminary estimate as referred above.

[Er.Surendra Stugn]

Superintending Engineer[Elect.]
Chandigarh Central Electrical Circle.
Central P.W.D., Chandigarh.

Copy to:

- Superintending Engineer, Chandigarh Central Circle, CPWD, Chandigarh for information.
- Executive Engineer, Karnal Central Division, CPWD, 448, Suthhash Colony, Karnal w.r.t. your office letter no. 20(142)/KCD/2012/2885 dated 17.9.2012 alongwith copy of PE.

Engl: As above

- 3 Executive Engineer[Elect]. Karnal Central Elect.Division, CPWD, Karnal, for intermation alongwith the copy of PE.
  Encl. As above
- Guard file

30/

Superintending Engineer(Flent.)

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# भारत सरकार **GOVERNMENT OF INDIA**

केन्द्रीय लोक निर्माण विभाग

# CENTRAL PUBLIC WORKS DEPARTMENT

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अधीक्षण अभियन्ता (वै०) चण्डीगढ़ केन्द्रीय वैद्युत परिमंडल, के लो नि विव, सेक्टर-9(ए), चण्डीगढ़-160019

Office of the: Superintending Engineer (E), Chandigarh Central Elect. Circle, CPWD, Sector-9(A), Chandigarh-160 019

State:- Haryana

Circle: -

**CCEC** 

Zone:- NZ-I

Division: - KCED

PRELIMINARY ESTIMATE

Name of work: - Provision of Lifts at Various Locations in NiT Kurukshetra.

**ESTIMATED COST** 1.

Rs. 2,62,87,188/-

**COMPLETION PERIOD** 2.

12 Months.

Assistant Engineer(E)P Chd. Cent. Elect. Circle, CPWD, Chandigarh.

Executive Engineer (E) P Chandigath Cent. Elect. Circle, CPWD, Chandigarh.

Superintending Engineer (E) Chandigarh Cent. Elect. Circle, CPWD, Chandigarh.

Date:

11-2012

# <u>GOVT OF INDIA</u> CENTRAL PUBLIC WORKS DEPARTMENT

State : Haryana Brench : 6 & M CIRCLE

CCEC,Chandigorh

Division

KCEO, Karnal

NAy:-

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Provision of lifts at various locations in NIT Kurukshetra...

This Preliminary Estimate has been framed by Er. Narender Kaushal, EE (E). KCEO Kamal and processed in the office of Superintending Engineer (*E) Chandigarh Central Electrical Circle, for the probable cost of Rs. 2,82,87,188/- i/c 3% Contingencies.

## REPORT

History:-This Preliminary Estimate amounting to Rs 2,62,87,188/- i/c contingencies has been framed to cover 1 the cost of above for which the regulation has been received vide letter No. CC/187/6141 dated 24.08.2012 from the Client Department. The estimate has been framed for obtaining A/A & E/S of the competent authority.

<u>Design & Scope:</u> The provision for energy efficient and jerk free i.e smooth drive, lift has been made in the estimate. Since the height of the building is three story, hence a lift of 1 meter per second speed as per CPWD specification has been proposed in the estimate.

The Provision for Installation Of lifts has been kept for following locations:-

- Admn. Block.
- ii) Elect, Engg. Deptt.
- iii) Lochire Hall Complex.
- iv) M8A / MCA Block
- v) New Work Shop.
- vi) Library.
- vii) Computer Engg
- viii) CCN Bullding.

Method :- By Call of Tenders.

Rates :- PAR 2007 & M/R.

Time: 12 months.

Cost :- Rs 2,62,87,188/-

Assistant Engineer (E)P Chandigarh Cent. Elect. Circle

CPWD, Chandigarh.

Executive Engineer (E)P

Chandigarh Cent. Elect. Circle

CPWD, Chandigarh.

Superintending Engineer (E) Chandigarh Cent. Elect. Circle

CPWD, Chandigarh.

## SCHEDULE OF WORK

Name of work:- Provision of Lifts at various locations in NIT, Xurukshetra

S.No	Description of Items	QΤΥ	Rate	Unit	Amount (in fis)	REMARKS
	Sub Head-I (LIFT EQUIPMENTS)		_			
1	S/I/T/C of1m/sec 13 passenger LiftVVVF	- 1				
	Microprocessor Control Stainless steel	1	]			
	doors, Automatic Power Operated Doors, Automatic		1			
	Rescue device with standard controls and operating	1		l i	ĺ	i
	device, (for a travel of Ground floor+ 2 floors)					
	Disabled friendly as regained.					
		8 Jobs	1620000.00	Job ,	12960000,00	PAR2007
i	Add Cost Index@	. J	57%	l i	7387200.00	
1	li	<u> </u>		Ĺľ	20347200.00	
2	Provision for Earthing, LT Panel, LT Cable etc as regd.			$\Gamma$	· · · · · · · · · · · · · · · · · · ·	
		8 Job	200000.00	Job_	1600000.00	İ
	Sub Total				21947200.00	
	Add contingencies@		3%;		658416.00	
	Add tabour cess@ -		1%		219472.00	
	Total of Sub Head-I				22825088.00	
<b></b> -	Sub Head-II (Civil Work)				·	<del>-</del>
ī	As intimated by EEO,KCD,Karnal letter No.					
	20(142)/XCD/2012/2805 Dated 17:09:12 For Bits at				ļ	
	8 locations	1 Job	3462100.00	Job_ ,	3452100.00	
	GRAND TOTAL (Sub Head-I & Sub Head-II)				26287188.00	
	5AY			_	26287188.00	

Assistant Engineer (F)P
Chandigarh Central Sleet Circle
CPWD, Chandigarh.

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 $\bigcirc$ 

Executive Engineer (E)P

Chandigarh Cont Elect Circle

CPWD, Chandigarh.

Superinte<del>lveling Egyluger(E)</del>

Charkinger Central Electrical Circle

CPWD, Chandigarb

# GOVERNMENT OF INDIA

# CENTRAL PUBLIC WORKS DEPARTMENT

HARYANA State

DIVISION KARNAL CENTRA

Branch KARNAL SUB DIVISION KARNAL CENTRA

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( )

Name of Work : Provision of lifts at various locations in NIT, Kuruksherra, SH : Civil work.

Major Head		Minor Head	Detailed Head				
٠	:		· -				

This estimate has been framed by Sh. Iqbal Singh, Executive Engineer, Karnal Central Division, CPWD, Karnal for Rs. 34,62,100/- i/c 5% contingencies.

# REPORT

History

This detailed extimate amounting to Rs. 34,62,100/- i/c 5% contingencies has been trained to cover up the probable cost of above mentioned work for accord of A/A & 6/S of the competent authority. The requisition of the above said work has been received from ellent deptt, vide letter No. CC/187/6141 Dt. 24.8.2012. The site was inspected with Chairman (E, EM & C) of NIT, Knrukshetra in presence of engineering shiff of NIT. Various locations were finalized for making. provision of lifts in the buildings. Accordingly this estimate for civil work.

Design

Following provision has been made in the estimate:-

RCC framed structure for providing lifts of following location :-

i) Admn. Block

ii) Elect. Engg. Depti.

iii) Locture [[all complex]

iv) MBA/MCA Block

y) New Workshop.

vi) Library

vii) Computer Engineering

viii) CCN Building.

Specification

As per CPWD Specification 2009 vol I to \$1 with upto date correction slip.

WC Establishment Shall be mer out of contingencies.

T. & P.

SIMI be arranged by the contractor.

Land

Avaimble.

Rate

By contract after call of tender.

Method

As ger DSR 2012 with upon date contect on sain.

Time

Six months

Cast

Residence to the second agencies

alķ....

Pipe Car

0	Original Estima	to	·			
NW	Providing tills at various locations in NIT, Kurukshetra.				· · ·	
(3)	Transfer of tallors locations in and I dendrished at				: .	
ISLNo	Description	Qty	Unit	Rate	Amount	DSR No.
O	EARTH WORK			, , , , , ,	THE PARTY	: 2:
. ~	Earth work in excavation by mechanical means (Hydraulic		! :	:	7 "	j <u>-</u> -
'o	exceyator ); mainual means over areas (exceeding 30um inj		!	:	!	
	depth, 15m in width as well as 10 snm on plan) including		<u> </u>			' I
¦O	disposal of excavated earth, lead upto 50m and lift upto 1.5m,:			:	:	; <b>,</b>
	disposed earth to be levelled and neatly dressed.					2.6
$ Q_1 $	All kinds of soil	193.00	cum	129.35	24965.00	· · · · · - · · · · · · · · · · · · · ·
O	Filling available excavated earth (excluding rock) in trenches,;					t- · - · 1
,~	plants, sides of loundations etc. in layers not exceeding 20cm		:		1	!
Ю	in depth, consolidating each deposited layer by remining and		i		1	; 1
i_	watering, read up to 50 m and lift upto 1.5 m.		!	1		.
Ю	1	85.00	cum	83.80	5447.00	2.25
13	timital for every additional lift of 1.5 m or part thereof in			i	!	
K)	excavation franking excavated or stacked malerials.	_ ;	l.	:	!	2.26
130	All kinds of soil.	165.00	cum	34.60	5709.00	2.26.1
Μ.	Sub-Total			1	36121.00	
b	CONCRETE WORK				i	- 4
7:1	Providing and taying in position cement concrete of specified			:	[ ]	
O .	grade excluding the cost of centring and shuttering - All work;	!		i	!!	
Ī	upto plinth level .					. 4.1
() L1	I 5.10 (1 cement : 5 fine sand : 10 graded stone aggregate 40)	!		į	l J	
	mm narmnal size)	14.00	cum	3007,45	43224.00	4.1.11
()2	Making plinth protection 50mm thick of cement concrete 1:3:6			1	, ,	l
占	(1 carrient , 3 coarse sand ; 6 graded stone aggregate 20 mm)			1	' '	•
7	nominal size) over 75mm bed by dry brick ballast 40mm	!		i	! :	- 1
Ò	nominal size web rammed and consolidated and grouted with			:	. !	
i,	True sand including. finishing the top smooth.	100.00 i		1		اا
)	I	102.00	sqm	338,75	34553,00	4.17
Ţ.,	Sub-Total	'		!	77777.00	
)³ ₹3.1	REINFORCED CEMENT CONCRETE			1	ļ.	5
$f_{N,1}$	Providing and laying in position specified grade of reinforced:	:			i	1
1	coment concrete excluding the cost of centring, shuttering,	i		:		!
3	finishing and reinforcement - All work upto plinth level;				!	
1	1 1%3 (1 cement : 1% coarse sand : 3 graded stone)					5.1
1311		26.00	C III	5094.85	120420 00	E 4.0
1	suggregate 20 mm norminal size)  Relationsed persons proporte work in walls (and thickness) in	20.00	Gritti	. 0094.85	132466.00	5.1.2
)3 2 4	Reinforced cement concrete work in walls (any thickness), including attached plasters, buttresses, plinth and string					
	courses, filters, columns, pillars, piars, abutments, posts and			į i		:
	struts etc. upto floor five level excluding cost of certifing.:				İ	
Į	shuttering thishing and reinforcement.	!			·	501
321	1.1% 3 (1 coment : 1% coaise sand : 3 graded stone)			: ;		52
13.7	aggregate 20 mm rominal size)	56.00	cum	i 5735 75 _i	321202.00	5 2.2
3.3	Contring and shuttering including strutting, propping etc. and	VO.04	ÇUIII	100 /0	25 (505.00)	D 2.2
1. 3	contains and studential inclinating streaming, propping etc. and			. !		5.8 :
331	Foundations, feetings, bases of columns, etc. for mass.			i		(1.2
1.3.	caputele	32.00	sum	166.90	5341.00 ^{‡.}	5.9.1
13.37	While (any thickness) including attached plasters, buttresses;	Ç.,u	Squi	1,10.00	3-24 1.00	4.0.
	plinth and shing courses etc.	213 00	sղm	285.15 ;	60737.00 ¹⁷	35.9
h:: .	· · · · · · · · · · · · · · · · · · ·		2.4	. 132.10	0.31 07 ,180	core .
1	Picture.	100.00	sam	511.20	31129,001	5.9
,	E					

1	Description	City	Unit	Rate	;Amount	DSR No.
1,4	(,6)lek\$- beains, plinth boams, girders, bressumers end					·
1.0	cartilevers	225.00	5qm	262. <b>2</b> 5	59006,00	
ΩŌ.	Columns, Pillars, Piers, Abutments, Posts and Struts.	200.00	ន្បាក	. 365.60	73120.00	5.9.6
1,30	Steel reinforcement for R.C.C. work including straightening,					
0	outring, bending, placing in position and binding all complete up to plinth level.					: <b>z</b> no.
Lacs	Themso-Mechanically Treated bars.	14675.00	kg	62.25	925969.00	5.22
130	Reinforced cement concrete work in beams, suspended		1739		1 1000000000000000000000000000000000000	: 5, <u>22.6;</u>
0	llours, roofs having slope upto 15° landings, balconies				1	i i
1 ~	shelves, chaljas, lintels, bands, plain window sills, staircases			:	!	
10	and spiral stair cases upto floor five level excluding the cost of			!		j
	centring, shuttering, finishing and reinforcement with 1:11/2:3 (1)					!
0	nement 1½ coarse sand : 3 graded stone aggregate 20 mm			i	! .	<u>.</u>
0	normal size)	35.00	cum	5885,50	205993.00	
	506-1 ota:	j !			1614954.00	1
(; O	BRICK WORK	<b>.</b>		•	! ,	- 6
	(trick work with common burnt clay F.P.S. (non modular)	l .		!	!	¦
0	bricks of class designation 7.5 in superstructure above plinth reverup to floor V level in all shapes and sizes in ;				'	6.4
1:0	Coment mortar 1:6 (1 cement : 6 coarse sand)	125.00	cum	3876.15	484519.00	6.4.2
1,2	Brick adging 7cm wide 11.4cm, deep to plinth protection with			2010110		0.4.2
0	common burnt clay F.P.S. (non modular) bricks of class				.	
	obsignation 7.5 including grouting with cement mortar 1:4 (1)			!	.	
, 0	çement : 4 fine sand).	102.00	metre	26.05	2857.00	6.44
ا 🖯	Sct-fotal				487176.00	
,Ο	STEEL WORK	:	,			10
٦٥,	Providing and fixing 1 mm thick M.S. sheet door with frame of		:			
	40x40x6mm angle from and 3mm M.S. gusset plates at the	į				1
$\Theta$	junctions and corners, all necessary fittings complete.	i			Í	}
<i>(</i> 3)	including applying a priming cost of approved steel primer.	:			į	
O 5.1.1	Using flats 30x6mm for diagonal braces and central cross	į		:	i	10.5
ď	PIOCE.	16.00	នបុល	2427.15	38834.00	10.5.2
5.2	Providing and fixing T-Iron frames for doors, windows and;		D qui	2.721.10	. 39034.00	. 10.3.2
$^{\circ}$ O	ventilators of mild steel Tee-sections, joints mitred and welded,	į		į		.
	including fixing of necessary butt hinges and screws and	i			.	
O	applying a priming coat of approved steel primer.					1
75			:	:		10.13
5.24	Figure with carbon steel galvanised dash fastaner of required		i		[	,.
$\circ$	dia and size (to be paid for separately).	150.00	kg i	70,40	10560.00	10.13.2
	Sub-Total	:			49394.00	[
5() ·	FLOORING	- .				11
61	Kota stone stab flooring over 20 mm (average) thick base tate over and jointed with grey coment sturry mixed with pigment to.			i	:	
	match the shade of the stab including rubbing and polishing;				:	
	complete with base of cament moder 1 : 4 (1 coment : 4)	!	:			
	QUARSE SAND)	;			L.	11.26
el Y	26 mm Blok	65.00	sqm	945.70	61471.00°	11.26 1
6.7	Kota stone slabs 25 mm thick in risers of sleps, skirting, dado	i				
'	and pitars laid on 12 mm (average) thick cement mortar 1:3 (1,					
	sement 5 course sand) and jointed with grey cement slurry					
	milited with proment to match the shade of the slabs, including				L-	1
	retibing and polishing complete	5,00	sum	554,10 ·	7633.00	11 27
,	Gets Total				69104 00 ₁	45
· –	30 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					12:

アンション・ション こうできるのかからない

Ü						
	Description	Qty :	Unit	Rate	Amount	DSR No.
TU)	Providing and fixing 100 mm diameter and 30 cm long rain.	!	•••			
La	water spoul in coment mortar 1.4 (1 cement 4 fine sand)			!	ا ا	<b>12</b> .37
፣ ት′	Stone ware sport	8.00	cach	68.10	545.00-	12,37,1
$\circ$	Sub fotal	. :		İ	545.00	
_	FINISHING				···· ·	13
υQ	12 mm cament plaster of mix .	ì		. ·		13.1
128	1.8 (1 cement: 6 line sand)	550.00	sqm	112.50	61875.00	13.1.2
2O	15 roro coment plaster on the rough side of single or half brick!			!		
20	wall of mix	إحممت		 		13.2
$\sim$		650.00	sqm	130 20	71610.00	13.2.2
:O	6 mm coment plaster of mur.	doé an l		404.00	15-7500 as Y	13.16
46	1:3 (1 cement : 3 fine sond) White washing with time to give an even shade:	565,00	sym	101.00	57065.00	13.16.1
Įφ	New work (three or more coals)	833,00	6.010	ii.75	0.760.00	13.37
	Fillusing walls with Acrylic Smooth exterior paint of required:	033,00	<u>इत</u> ाग	- 11.45	9/88.00	13.37.1
~	shade.					13,46
$\pm$	New work (Two or more coat applied @ 1.67 lb/10 sqm over					13.40
_	and including priming coat of exterior primer applied @ 2.20]				ļ .	- 1
(3)	kg/ 10 sqm)	833.00	<b>aq</b> m	67.50	56228.00	13.46.1
6	Painting with synthetic enamel paint of approved brand and	:	. ;			
O	manufacture longiye an even shade :	İ.			1	13.61
$^{\circ}$	Two or more costs on new work	16.CO	šqm .	53.85	862.00	13.61.1
0	Sub-Total	. 1.	!	- <del>-</del> 1	267428.00	. [
φ	WATER PROOFING	. !	i	·		22
•	Providing and laying integral coment based treatment for water	i		;	14	
$\circ$	proofing on horizontal surface at all depth below ground level	:		:	:	
_	for under ground structures as directed by Engineer-in-Charge	;			`	.
⊖	and consisting of 33 in thick approved and specified.		1	:	:	
$\Theta$	rough stone slab over a 25mm Blick base of cement mortar!	:	'	,	į	
• • •	1.3 (1 cement : 3 coarse sand) mixed with water proofing	:	!	į		
$\circ$	compound conforming to IS:2645 in the recommended	1	į	:		
	proportion over the levelling course (levelling course to be paid)		:	i	i	
$\circ$	separately). Joints sealed and grouted with cement slurry	!		-	j	
$\circ$	mixed with water proofing compound .1!	: •		i	.	
(_'	ii) 2nd layer of 25mm thick cement mortar 1:3 (1 cement : 3)			1		ļ
()	coarse sand) mixed with water proofing compound in			-	i	- 1
`	recommended proportions.)			:	i	
$\langle t_i \rangle$	<ul> <li>iii) Finishing top with stone aggregate of 10mm to 12mm;</li> </ul>		!	i	-	l
	norminal size spreading @ 8 cudin/sqrn thoroughly embedded		'	į	į	
6.3	in the 2nd layer		- 1	;		22.1
1,1	Using rough Kota stane	62 00	sqm	732.85	45437.00	22.1.1
7	Providing and laying integral cement based treatment for water	·		į		
1	preofund on the vertical surface by fixing specified stone slab;			i	i	
	22 min to 25mm thick with cement stury mixed with water			'		
i :	providing compound conforming to IS.2645 in recommended;	:	!			
	proportions with a gap of 20mm (minimum) between stone; states and the receiving stateous and filling the gaps with neat-					į
	Cannent story named with water pronting compound and				!	1
	farishing the exterior of stone slab with coment mortar 1:3 (1)					}
	noment is coarse said) 20mm thick with heat coment			:		
	proming mixed with water proving compound in			!	;	
	sc remended proportion complete at all levels and as			:		
	sloot fed by Engli Horan Charge				•	
						22.2)
	•					

ľ	19	a							
	EQ.	Doscription	Oty	:	Unit	Rate	Amount	DSR No.	7
	112	Using rough Kota stone	170.00	<u> </u>	sgm	884.00	150433.00	22.2.1	il
	(Ja	Providing and laying Integral cement hased water proofing!		ì	-	į		<del> </del>	
٠.	0	treatment including preparation of surface as required for						:	
	19	freatmont of roofs, balconies, terraces etc consisting of;					l	;	
*	10	following uparations.( )					!	i	l
[ ]	1 ~	a) Applying a slurry coat of neat dement using 2.75 kg/sqm. of		į			İ		
	(Q)	carnent admixed with water proofing compound conforming to		:			!	i !	ı
4.	1	IS 2645 and approved by Engineer-in-chargo over the RCC					1		ı
30	0	state including adjoining walls upto 300mm height including		:		!		 	ļ
2.	25	clouring the surface before treatment.)		;		İ	i		ł
de	0	b) Laying brick bals with mintar using broken bricks/brick bals;		1		i	l	! !	ĺ
A	0	25 mm to 115mm size with 50% of cement modar 1:5 (1)				!			1
在各个有限力的。		coment 5 coarse saint) admixed with water proofing					ļ :		1
٠.	0	compound conforming to IS . 2645 and approved by Engineer-				İ	į į		1
<u></u>	_	in charge over 20 mm thick layer of cement mortar of mix 1:5				!			1
ŀl	0	(1 cement :5 coarse sand ) admixed with water probling compound conforming to \$8 : 2545 and approved by Engineer-		i			!		ì
.:	43	in-charge to required slope and treating similarly the adjoining		!					ł
, ·	Q	walls upto 300 mm height including rounding of junctions of		i					ı
Н	O	walls and stabs!					! i		1
IJ	O	of After two days of proper curling applying a second coat of				! !	į		ı
Н	$\circ$	coment slumy using 2.75kg/ sqm of cement admixed with water		ļ		i l		. 22.7	í
ľł	8 <u>2</u> 1	With average thickness of 120mm and minimum, thickness at		İ		!	· ·-·· }	. 22.1	ı
Н	Õ	xauro as 65 mm	38 ÇO	!	sqm	786.70	29895.00	22.7.1	ı
Н		Sub-Lotai	** !-		- 4		225766.00	Z	ĺ
Ιi	$\circ$			†		ıļ	220,00.00		
	4	Fotal		i		! '	3018264.00		ĺ
''	$\Theta$	Add Cost Index @4.00%		!		:	120731.00		ĺ
Ы	O	Lotat		!		: !	3138995 00		
Н	<u> </u>	Aud Contingencies @5.00%		i		. ;	155950.00	j	
l. I	O.	ficial		ļ		!	3295945.00	· ·	ĺ
H		Add 1% Dess		ļ		. !	32959,00	٠. ا	
1	$\circ$	fotos		l !		! [	3328904,00	٠	
П		Add 4% VAT		:		ļ į	133156.00		
.	(0)	Grand Total	-	i			3462060,00		
	. 🔿					Ţ		ŀ	
1		Say Rs. 34,62,10W-						F	
ĺ	İ(!	· · · i		i		.1			
į		الباسا والمساور المساور المساور المساور المساور المساور المساور المساور المساور المساور المساور المساور المساور		ŗ	_ '	4	· · · · ·	_	
4	(1)	90	My		Exe	cutive Byo	ineer'		
		Of 48.6			· Kam	al Central D	livision	.	
	1					FWD, Kan	าอไ		

0 To consider & approve the Cost Estimate for Widening & Item No. 16.18 strengthening of existing roads at NIT, Kurukshetra. 0 0 0 0 0 219.32 lacs.  $\bigcirc$ The B & WC may consider and approve the cost estimate 0 for the above cited work for an amount of Rs. 219.32 lacs. 0 0 ()0 0  $\bigcirc$  $\bigcirc$  $\bigcirc$ 0 0  $\bigcirc$ ()

The above mentioned work was placed before the High Power Committee in its meeting held on 01.10.2012. Being the essential requirement of the work, the committee recommended for approval and same was approved by the Hon'ble Director, NIT, Kurukshetra. Executive Engineer, CPWD has submitted the cost estimate for the above work for an amount of Rs.

कारोपालक अभिरांता, करनाल केन्द्रीय भुण्डल, के हो वि ध्य, 448, सुभाप कालोकी, करनाल को

अधीक्षण वाभियंदा

1. 2.

सुधुनाश्री ।

## Central Public Works Department (Name of Work: Widening & strengthening of roads at NIT, Kurukshetra. This estimate has been framed by Sh. Iqbal Singh, Executive Engineer, Kamal Central Division, CPWD, Karnal for Rs. 2,19,32,000/- i/c 3% contingencies O O History This preliminary cum detailed estimate amounting to Rs. 2,19,32,000/- i/c 3% contingencies. has been framed to cover up the probable cost of above mentioned work for accord of A/A & E/S of the competent authority. The requisition of the above said work has been received from O client department vide letter No. CC/219/6899 Dt. 8.10.2012. O Design & Scope : Following provision has been made in the estimate:-0 Widening of road - kirmich gate to first crossing. 0 first crossing to NIT chowk. NIT chowk to crossing near main park of residential area. University gate to Girls Hostel. Providing & laying GSB 150mm on widening portion. O. P/L WMM 150mm on widening portion. P/L B.M. 50mm thick on widening portion. 0 5. 4cm thick bituminious macadam using crushed stone aggregate on entire road. P/L kerb stone and crossing drainage. θ ( ) Specification: As per CPWD Specification 2009 vol I to II with upto date correction slip. $\odot$ WCC Establishment: Shall be met out of contingencies. T&P Shall be arranged by the contractor. Land : Available

: As per DSR 2012 with upto date correction slip.

: Rs. 2,19,32,000/- i/c 3% contingencies.

Method

Time

Cost

: Six months.

Executive Engineer Karnal Central Division CPWD, Kamal

 By contract after call of repders Mietpoq

Six months after salt of tenders: DSR 2012 with upto date correction slip.

: Re. 2, 19,32,000\- i\c 3\% condrigencies.

NVA A-AMA Fxecutive®ngineer(P) Chandigath Central Cirote CPWD, Chandigath

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 $\mathbf{Time}$ O

Rate

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Nα	Description	Qty	Unit	! R≘te	Amount	DSR No.
	EARTH WORK			Ī	<del> </del>	<del></del>
	Excavating frenches of required width for pipes, cables, etc.	<u> </u>		· <u>†</u> -···-	· <u>-</u> - · -	
	including excavation for sackets, and dressing of sides	.!		1		
	ramming of bottoms, depth upto 1.5 m including getting our		l	!	:	į
	the excavated soil, and then returning the soil as required, in	1				
	layers not exceeding 20 cm in depth including consolidating				•	•
	each deposited layer by ramming, watering, etc. and				:	i
	disposing of surplus excavated soi: as directed, within a lead	lļ i				
_	of 50 m.	i;		<b>.</b>		(-2.000)
	All kinds of soil	↓ i			I	2 10.
1	Pipes, cables etc. exceeding 300 mm die but not exceeding					
_	600 mm,	2993.00	rneire	<u> 258.55</u>	773840.00	
-	Sub-Total .			<u>·</u>	773840.00	<u> </u>
	CONCRETE WORK	!			<u>i</u>	
	Providing and taying in position cament concrete of specified	1				
	grade excluding the cost of centring and shuttering - All work	1 .		i		
	upto plinth level:	l į				. 4.1
	1:5:10 (ill cement : 5 coarse sand : 10 graded stone aggregate			-	4440004.00	
• • •	;40 mm nominal size)	342.00	cum	‡.ä337. <b>4</b> 0.	1148231.00	
	FINISHING	!		!	1148231 00	13
	Finishing walls with Acrylic Smooth exterior paint of required	<del></del>		<u> </u>	<u>:</u>	13
	shade.	i I		!		17.48
	New work (Two or more coat applied @ 1.67 ltr/10 sqm over	<del>                                     </del>				13.46
	and including priming cost of extenor primer applied @ 2.20					
	kg/ 10 sqm).	1995.00	sgm	<b>6</b> 7.50	134663.00	13 46. <b>1</b>
	Sub-Total	1000.00	34	f. <b>0</b> 1.00 '	134663.00	
•	ROADWORK	l ı		i	104000,00	16
•	Preparation and consolidation of sub grade with power road	i l		I	4	
	roller of 8 to 12 tonne capacity after excavating earth to an				:	
	average of 22.5 cm. depth, dressing to camber and			. ;		
	consolidating with road roller including making good the	!				
	undutations etc. and re-rolling the sub grade, and disposal of					-
	Isurplus earth lead upto 50 metres.	6160.00	sqm	61.25	377300.00	15.1
	Providing and applying tack coat using hot straight run-				····	
	bitumen of grade VG - 10 including heating the bitumen,				:	
	spraying the bitumen with mechanically operated spray unit				i	
	fitted on bitumen boiler, cleaning and preparing the existing					
	road surface as per specifications:					16.3
	On W.B.M. @ 0.75 Kg / sqm	6160.00	sqm_	40.15	247324 00	16.30 1
	On bituminous surface @ 0.50 Kg / sqm	6665.00	sqin :	29,00	193285.00	16,30,2
	4 cm thick bitumastic sheet with hot billumen of approved			i	i	
	quality using stone chippings (80% 12.5mm nominal size and		:			
	40% 10mm nominal size) @ 2.60curn per 100 sqn. and;					
	coarse sand at 2.60cum per 100 sgm of road surface and with		'	٠.		ļ
	bitumen @ 56 kg/cum. of stone chippings and at 128 kg/cum.		1			
	of sand over a tack coat with hot straight run bitumen					
	including consolidation with road roller of 8 to 10 tonne etc.					4.5
	complete (tack coat to be paid separately)					16 39
	With Refinery Modified Bilumen CRMS 55 conforming to IRC:	4000E-00		Aca 45	4500474.00	40.00.51
	SP 53.	12825 00	sam :	352.45	4520171.00	16.39.3

	<u> </u>	Providing and laying bituminous macadam using crushed				•	•
Į		stone aggregates of specified grading premixed with	i	:			
1	O	bituminous binder, bansported to sife by lippers, laid over a	'	<u> </u>			:
	Z.	proviously prepared surface with paver finisher equiped with		İ	:	İ	ļ
ı	O	electronic sensor to the required grade, level and alignment		:		i	
IJ	O	and rolling with smooth wheeled, vibratory and tandem rollers	1	:	:	İ	
Н	9	as per specifications to achieve the desired compaction and		i		į	!
ij	0	density, complete as per specifications and directions of			!		•
H	~	Engineer-in-Chargo.	İ	İ		_	16.56
1	$O^{i,1}$	50 to 100 mm average compacted thickness with bitumen of		1		-	:
H	_	grade VG-30 @3.50% (percentage by weight of total mix)		i			
П	$\circ$	prepared in Drum Type Hot Mix Plant of 60-90 TPH capacity.		!	i	:	
Ш			308.00	cum	6149.90	1894169.00	16.55.2
Ιi	O₃	Providing and applying 2.5mm thick road marking strips (retro					
Ш	$\sim$	reflective) of specified shade/ colour using hot thermoplastic		:	!		
Ш	0	material by fully/ semi automatic thermoplastic paint applicator		:	i		
П	$\sim$	machine fitted with profile shoe, glass beads dispenser;		· .	I		
	0	propané tank heater and profile shoe heater, driven by				Ι.	
ļļ	0	experienced operator on road surface including cost of		į		'	
	~	material, labour ,T&P, cleaning the road surface of all dirt.			!	i i	i
П	$\Theta$	seals, cul, grease and foreign material etc. complete as per					
ll		direction of Engineer-la-charge and accordance with				: '	
	() 4 6 ()	applicable specifications.	570.00	5 <b>9</b> m	505,80	288306.00	16.62
	4.6	Providing and laying and making kerb channel 30cm wide and					·
l	0	50mm thick of cement concrete 1:3:6 (1 cement:3 coarse!			i	l · į	
ı	_	sand.6 graded stone aggregate 20mm nominal size) over				! ·	]
	0	75mm hed of dry brick ballast 40 mm nominal size well					- 1
	0	rammed and consolidated and grouted with fine sand.			j	İ :	
ľ		including finishing the top smooth etc. complete and as per			!	¦ į	
1		direction of Englnoor-in-charge.	855.DD	Sgm	291.95	249617.00	16,63
		Providing and laying 60mm thick factory made cement	!		: '	'	
	9	conurete interlocking paver block of M -30 grade made by				. :	Í
ŀ		block making machine with strong vibratory compaction, of	:		i.	:-	
ŀ	$\circ$	approved size, design & shape, laid in required colour and	İ		! :		
١	_	pattern over and including 50mm thick compacted bed of fine			!	ļ	
Î	$\odot$	sand, filling the joints with fine sand etc. all complete as peri-	4075 OR	245			40.50
1	()a	the direction of Engineer-in-charge.	4275.00	sqm	536.65	2294179.00	. <u>. 16.6</u> 8
ĺ	_0	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the			!!!		1
ļ	$\circ$	required line, level and curvature, jointed with cement mortar	ł				!
	• •	1:3 (1 cement: 3 coarse sand) including making joints with or-				!	
}	()	without grooves (thickness of joints except at sharp curve)	ļ		. :		
	_	shall not to more finan 5mm), including making drainage			Ι,	:	
ł	$\odot$	opening wherever required complete etc. as per direction of			;		
١		Engineer-in-charge (length of finished kerb edging shall be			! '		1
١	١.	measured for payment) (Precast C.C kerb stone shall be			i		1
	,	approved by Engineer-in-charge)	257.00 :	cum	: 5045.80	1297028.00	76.69
-	4.9	Construction of granular sub-base by providing close,				1237020.00	10.00
		graded Material conforming to specifications, mixing in a					
		mechanical mix plant at OMC, carriage, of mixed material by					
ļ	i	tippers to work site for all leads & lifts, spreading in					
		uniform layers of specified thickness with motor grader on-					- 1
		prepared surface and compacting with vibratory power roller					
		to achieve the desired density, complete as per specifications!					
i		and directions of Engineer-in- Charge					!
ŀ							16.78
Ę	-91		i				į
i		0.075 mm) having CBR Value 30	924 00	GUTT	1940 80	1793299.001	16 78 1

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15	LNo	Description	City	Unit	Rate	Amount	DSR No.
4	1	Providing, laying, spreading and compacting graded stone				:	
$\circ$		aggregate (size range 53 mm to 9.075 mm) to well prix.		i			
. 14	()	macadam (WMM) specification including premixing the			ļ	i	:
O		material with water at OMC in mechanical mix plant, captage		!	:		1
		of mixed material by tipper to site, for all leads & lifts, taying in.			!	i	İ
Ч		uniform layers with mechanical paver finisher in sub-base / ibase course on well prepared surface and compacting with		•		!	
$\circ$		vibratory roller of 8 to 10 tonne capacity to achieve the desired:			!	_	ı
۲į		density, complete as per specifications and directions of			ļ	İ	
O.		Engineer-in-Charge.	924.00	čum	1980.60	1811594.00	18.79
_ -		Sub-Total			1400.00	14956272.00	
$O_{15}$		DRAINAGE			<u> </u>	T 1-1-00E 1 2:00	19
	M- `	Providing and laying non-pressure NP2 class (light duty)	· · · · · · · · · · · · · · · · · · ·		i	<del> </del>	· <u>1~</u>
Ч		R.C.C. pipes with collars lointed with stiff mixture of coment			:		į
$\alpha$		mortar in the proportion of 1:2 (1 coment : 2 fine sand)			į.	:	
٦_		Including testing of joints etc. complete:			<u> </u>		19.6
	<u>.1.1</u>	150 mm dla. R.C.C. pipe	143.00	metre	254.50	36394.00	::-
(15 (15	.1.2	300 mm dia, R.C.C. pipe Constructing brick masonry road gully chamber 50x45x60 cm	2650.00	metre _	422.90	1205265.00	[9,0,4
ď	.4	with bricks in cement morter 1:4 (1 cement : 4 coarse sand);			l	i i	i
d		Incaxiling 600x450 mm precast R.C.C. horizontal grating with		•	i		
0		frame complete as per standard design :	- 1			: '	19,27
(D)\$	21	With common burnt day P.P.S. (non modular) bricks of class-	<u>~</u> - ∣	·	·	l˙ ·- <del> </del>	
**		designation 7.5	190.00	each	3193.50	606765.00	19.27.1
$-Q_{\perp}^{\circ}$		Sub-Total				1848424.00	
. 6		NSR ITEMS	!				50
Oá	.1	Providing and fixing RCC horizontal grating of size			_		
$\odot$		500x450mm with frame.	570.00	<u>each</u>	633,60	301152.00	50.187
177		Sub-Total	<del> </del>			361152.00	
0	· · ·	Total	<del>-,:</del>		·	400 <b>34 000</b> 0 <b>3</b>	<u>. ·</u>
	<del></del> -	Add Cost Index @ 157-149/149 i.e. 5,40% above	<del></del>	!	<del></del> +	19232582.00	· <u>'</u> ——-
$  \bigcirc$		Total	—- <del></del> -	-···		1038559.005 20271141.00	—
		Add Contingencies @3%	—· †	<u></u>	i	909134.00	···- ─┤
PO		Total			— <del>-</del>	20879276.00	
6		Add Labour Cess @1%	·—— : †		i	209793-00	
0		Total			!	21088068.00	
0		Add VAT @4%			i	943523.00	
١.		Grand Total		—·—…i		21931691.00	
10			i-	—·‡	,	<u>i</u>	
ļ ,	<u>-</u>	Say Rs. 2,19,32,000/-	.	<u> </u>	— —— i		
10				<del>-</del>	- — - :	··· <del></del>	🕴
i c	_	<del> </del>	<del></del>		_·· ;	<u></u> .i.	
		{	<del>-</del>	·- <u>/-</u> .L		· —	
٠,			· Notale	Alton	:	—· <del>.</del>	
		Assistant Engineer (P-III) Exc	ecutive Er	== :. Iginaer	- !	—· į	f
	· —		Chandigari		attati it		
	_	<del></del>			C.Ircte	!	· •
		CPWD, Chandigarh. 10	CPWD, Ch	andikur.	:	:	
		Presimilance Estimate agree when to Be 2 10 29 270 28 man T	j	nkasa kasa	ibari e e		(
. `		Pretiminary Estimate accounting to Rs. 2,19,32,000/- (Rupeas To submitted to client department for obtaining A/A & E/S of the com-	we Crafe fil Wellent exti	nteen 1965 Invibi	missy two I	rosado enly):	
		Page uniting to green personanciar of channing way of Era in this con-	dyckini acti	ionity.			
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		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					
		Superalending Engin.	, (C)				}
		Coandigarh Central Cir	rdie -				
		CPWD, Coandigarh	<u>.</u>				:

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Item No. 16.19 To consider & approve the cost estimate for Construction of multi-storey building for PG Research Schools [4 nos.) at NIT, Ruruksheira.

The above mentioned work was approved in the meeting of FC & BOG with covered area of 2000sqm on each floor including the provision of air conditioning etc. Chief Engineer, CPWD has submitted the cost estimate for the above work for an amount of Rs. 3566.43 lacs.

The B & WC may consider and approve the revised cost estimate for the above cited work for an amount of Rs. 3566.43 lacs.

## <u>ԵՒԻՐ ΚΑՆ ԻՐԹԱՆԵ, WURKS DECAKTWERT</u> KENDRIYA SADAN, SECTOR-9A, CIJANDIGARH

STATE: Haryana

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DIVISION: KCD

BRANCH: B&R

Name of work: C/o School Building, Training and Placement cell (Resoment and G+3) in NIT. Campus, Kurukshetra.

Mujor Head:

Minor Head:

Detailed Read:

This preliminary Estimate framed by Er. Inbal Singh, Executive Engineer, Karnal Central Division, CPWD, Karnal and processed by Er. Telinder Kumar, Executive Engineer (P)), O/o Chief Engineer (NZ-1), CPWD, Chandigarh for the probable cost of Rs. 35,66,43,200/- including 3% contingencies.

## REPORT

HISTORY: This preliminary estimate amounting to Rs. 35,66,43,200/- including 3% contingencies has been framed to cover up the probable cost of above mentioned work for accord of A/A & E/S of the competent authority. The requisition of the above said work has been received from client department vide letter No. CC/219/6899 dated 08.10.2012.

DESIGN & SCOPE; -This estimate is based on Sr, Arch. Letter No. SA(NZ-I)/366 dated 15.10.2012, Following provisions have been made in the estimate:-

- RCC framed structure with RCC raft footing.
- Extra for earth resisting carthquake forces.
- 3. Internal water supply, sanitary and electrical installations i/c external service connection.
- 4. Provision for development of site for 4000 sqm area has been taken.
- Provision for solar street lights automatic fire alarm 1250KVA transformer, solar power plant. water cooler with RO etc. have also been taken in this estimate.

SPECIFICATIONS:

As per CPWD Specifications 2009 Vol. I to II with upto date correction.

sligs.

RATES:

By contract after call of tender,

 $CQ\delta T_i$ 

Rs. 35,66,43,200/- i/c 3% contingencies

W.C. Fate:

Shall be met out of contingencies.

 $\mathbf{L} \mathbf{\hat{w}} \mathbf{P} \mathbf{\hat{z}}$ 

All T&P shall be arranged by the commeter.

METHOD:

Based on PAR-2007 (Re-print 2010) and market rates.

LAND:

Available with the client department.

TIME:

After receipt of A/A & E/S

(i)

Pre-construction period :

06 Months.

(ii)

Post construction period :

1**2 mont**ks

18 Months

Assistant Engineer (P) CPWD, Chardigach

Executive Engineer(P)II C237D, Chandiguria

1 (31)

S. No.	Descripation of Item	Civil	Electical	Total Amount	Remarks
1	School Building	209,433,074.00	126,737,382.00	336,170,456.00	As per Annexure A
i. • ••••		209,433,074.00	126,737,382.00	336,170,456.00	(C)
	Add 2% VATT	4,188,661.00	2,534,748.00	l	
	1	213,621,735.00	129,272,130.00		
······································	Add 1% labour cess on (C)	2,094,331.00	1,267,374.00		Address of the second of
	12 - 17 - 17 - 17 - 17 - 17 - 17 - 17 -	215,716,066.00	130,539,504.00	346,255,570.00	
	Add 3% contingencies.	6,471,482.00	3,916,185.00	10,387,667.00	
				356,643,237.00	
			Say	356,643,200.00	
	naulina	Alk		200	
Assistan	t Engineer (P)	Executive Engineer (P)		Superintending Eng	ineer(P)
	handigarh	CPWD, Chandigarh	* ** *** <b>.</b>	CPWD, Chandigarh	
	ary Estimate amounting to ₹ ad and Two Hundred Only) s				nree
Nn *	The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s	Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Compan	·	•	
***************************************		Chief Engineer (NZ-I)			

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Ŏ		ABS	TRACT OF	COST		!	
		work : C/o School Building, Training and P Work	lacement cell (	Basement au	id <b>G+3</b> ) In N	IIT Campus, Kuru	ikshetra.
эл Э	, CIVIS		<del></del>	1.00		1	
	Na	Description of Item	Qty.	Rale	Unit	Amount	Remarks
0		R.C.C. framed Structure	ļ. · - · —	· ·			
O	,	R.C.C. (remod atructure lipto six storeys	!			<b>-</b>	<u> </u>
0	! 1	Floor height 3.35mlr.(Office/ College/ Hospital) Basement for services	8000.00	9150.00	sqm	73200000.00	1.1.1
þ		(10452+1144 = 11596) Extra for	2000.00	11595.00	som	23192000.00	1.3. <u>2.1</u> 98592000.00
ပု	z	Every 0 3mtr. additional height of floor above normal floor height of 3 35mtr./ 2 90mtr				<u>-</u> !	(A) 1.2.3
р Б		Extra height 3 90 - 3.25 = 0.55m 150x0 95/6.30= 275/-	8000.00	275.00	sqm	2200000.00	
þ	.3	Every 0.3mtr risesper foundations over normal depth of 1.20mtr (on Ground Floor area only)		į į		!	1 2.5
Θ.			2000.00	150.00	sqm	300000.00	455
b		Resisting earth quake forces.	8000.00	830.00	sqm	5040000.00	1.2.8
Ľ.	5	RCC raft foundation (GF only)	2000.00	3560.00	इंद्राप	7120000.00	
٧.	1	Green building concept (GिराधिA) on (A)	93592000.00	10.00	96	9659200.00	As per S.A. Villes
Ö.	0	Internal water supply & sanitary installations on (A)	98592000.00	5.00	<u>%</u>	4929600.00	3.1
)	9	External services connections on (A)	98592000.00	3,75	%	3697200,00	3.2
	10	Quality Assurance on (A)	98592000.00	1.00	:- %	985920.00:	3.67

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4000 CO

4000.00

4000.00

4000.00

9,00

55 00

83 00

63,00

48 00

litre

sqm_

sqiff

squa

squq

Overhoad lank without staging

Filtered water supply distribution lines

Development of site

internal road & paths

100mm if o A below

Levelling

Sewer

Water supply

12

13

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4

10.1

5.1

6.1

6.2

6.3

64

641

720000.00

220000.00

332000.00

252000 ool

184000.00

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نالا کی	Description of Item	Oty.	Rala	Unit	Amount	Remarks
. <del>016.1</del>	Peopheral grid 150mm to 300mm dia pipes				<del>                                     </del>	G 1.2
-	· · · · · · · · · · · · · · · · · · ·	4000.00	35.00	នម្នាក	140000.00	u 1.2
OW	Storm water drains	4000.00	50.00	sqm	200000.00	6.5
(⊘ n	Hortculture Operations		; !		!	6.6
O 19	Add for rain water harvesting	.4000.00	; <u>47.00</u>	ടർന	138000.00	
		-	·	L.S.	1000000.00	
Φ	l'otal				133769920.00	
O	Aud Crist Index @ 57,00% except on item				7	
iO	No 19		! i		75673154.00	
Ö	TOTAL		'!		209433074,00	
b			<u> </u>		·	
	1		i			
/ 	Assistant Engineer(P)		<u>!</u>		<u>도 오라 트 j</u> Executive Engine	ertPill ·
<u> </u>	CPWD, Chandigarh				CPWD, Chandles	

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2.2

Addressable Intelligent Automatic

fire alarm system + PA system

10000!sgm

500.00

5000000

MR

€ Sr. No.	Description	Qty.	Unit	Rate	Amount	Remarks
2.3	Portable type fire Extinguishers system	50	Nos.	8000.00	400000	M.R.
3	Sub-Head -III (Augmentation of Sub- station equipments of existing sub station -I)		· 	 		<del>-'</del>
i 31	750 KVA DG Sets	· <u>-</u>	No.	9230000	9230000	M.R.
3.2	1250KVA transformer		No.	1911000	1911000	M.R.
33	Extension of existing HT panel with 1 no J O/G	1	Job !	572000	572000	M.R.
3.4	Augmentation of LT Panels		Job	2275000	2275000	M.R.
3.5	Sub station interconnection & earthings 10% of (1.2 to 1.4)	4929600	ηορ	10%	492960	M.R.
3.6	LT Cables			L	1000000	M.R.
3.7	APFC PANEL	300	<u>KVA</u> R	1625	467500	M.R.
1	Sub Head-IV (Solar energy Systems)					: -
4.1	Solar Photovoltiac Power plant without batteries for day use with Grid feed unit as required as per	5C	K₩	250000	12500000	M.R.
4.2	green building norms Water coolers in SS body with RO Water Purifiers, stand etc.	8 	Nos.	100000	800000	- M.R.
5	Sub-Head -V (AC Systems)		— i	<u>_</u> -	——·- ·-	├ ··
5.1	AC with winter heating including stand by units	400	lon	75000	30000000	M.R.
6	Sub-Head -VI ( LAN Systems, EPBAX, Projection, Displays & sound system)	····	ا	· !		
6.1	SITC of LAN system with conduiting cabling. Lan switches of 3 & 2 layers etc as required.	1 <u>!</u> 	job	3000000	3000000	M.R.
6.2	Equipment, Wiring & Outlets for Voice Network	-		ī.s. i	800000	M.R
6.3	Projection system with white e- board for each school building	4	obs "	2000000	8000000	M.R.
64	Sound system for for each school building	4   j	obs	800000	3200000	M.R.
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