



**National Institute of Technology
Rourkela**

MINUTES

**50th Meeting of
Building & Works Committee**

DATE : 24th April, 2024 (Wednesday)
TIME : 05:30 P.M.
VENUE : Board Room, NIT, Rourkela



राष्ट्रीय प्रौद्योगिकी संस्थान, राउरकेला
National Institute of Technology, Rourkela

50th Building & Works Committee, National Institute of Technology, Rourkela, held on
24.04.2024 (Wednesday) at 05:30 PM in the Board Room & MS-TEAM (online) of the Institute

Members Present

1. **Prof. K. Umamaheshwar Rao**
Director & Chairman, BWC
NIT, Rourkela
2. **Ms Veena Dunga** [Through online mode]
Deputy Secretary (NITs),
Technical Section - III (NITs Desk),
Department of Higher Education,
Ministry of Education (Shiksha Mantralaya),
Government of India,
Room No.435, C - Wing,
Shastri Bhawan, New Delhi – 110115
3. **Shri Anil Kumar** [Through online mode]
Director, Finance
Ministry of Education (Shiksha Mantralaya), Government of India,
Department of Secondary & Higher Education,
Shastri Bhawan, New Delhi – 110001
4. **Shri Dillip Kumar Sahoo**
GM, Projects (Civil)
SAIL, RSP, Rourkela
5. **Prof. Ashok Kumar Turuk**
Professor, Computer Science and Engineering & Member,
BOG, NIT, Rourkela
6. **Prof. Pradip Sarkar**
Professor, Civil Engineering & Dean (PD)
NIT, Rourkela
7. **Prof. Rohan Dhiman**
Registrar & Member Secretary, BWC,
NIT, Rourkela

Invitees Present

8. **Prof. S. Karmakar, EE**
Associate Dean PD (MEP), NIT Rourkela
9. **Prof. R. N. Behera, CE**
PIC (Civil Works), NIT, Rourkela

10. **Prof. S. Anbarasu, ME**
PIC (HVAC), NIT Rourkela
11. **Mr. Bimalendu Mohanty**
HOD (EM), Superintending Engineer, NIT Rourkela
12. **Mr. Joydip Mondal**
Senior Executive Engineer, Estate, NIT Rourkela
13. **Mr. S. Subhadarshi**
Senior Executive Engineer (Civil), Estate, NIT Rourkela
14. **Mr. Rajesh Kumar Sahoo**
Executive Engineer (E), Estate, NIT Rourkela

Members & Invitees Absent

15. **Shri B. K. Pati**
Executive Engineer
PWD, Uditnagar, Rourkela
16. **Shri Sanjay Kumar Pradhan**
GM, Tower Engg (Elect)
SAIL, RSP, Rourkela



राष्ट्रीय प्रौद्योगिकी संस्थान राउरकेला
National Institute of Technology Rourkela

Minutes of the 50th Meeting of Building & Works Committee, National Institute of Technology Rourkela held on 24-04-2024 at 05.30 P.M. in the Board Room of the Institute.

A) GENERAL AND PROCEDURAL MATTERS

BWC: 50(2024)-01: Welcome to the members by the Chairman of the BWC.

The director and Chairman of BWC welcomed all the members to the meeting.

BWC: 50(2024)-02: Confirmation of the minutes of the 49th meeting of the BWC held on 26.12.2023.

The minutes of the 49th meeting were sent to the members, and no comments were received from members.

BWC confirmed the minutes of the 49th BWC meeting.

[Annexure - A1, Page No. 4 - 10]

BWC: 50(2024)-03: To report on the action taken on the decisions made in the 49th BWC held on 26.12.2023 and to discuss matters arising out of the minutes.

The report on the action taken on the decisions made in the 49th Meeting of the BWC held on 26.12.2023 is presented for BWC's consideration.

During the discussion, the Director mentioned that the Institute has engaged CPWD for the construction of Kendriya Vidyalaya within the institute premises under Sanction Order Number: NITR/RG/2024/L/0063, dated January 29, 2024. CPWD has completed preliminary site preparations, including topographic surveys, soil testing, and architectural and structural designs well ahead of the implementation of the Model Code of Conduct for the 2024 general election.

The Institute aims to commence earth excavation by the first week of May to complete the foundation work before the onset of the monsoon season. While the construction of the superstructure can proceed during the rains, any delay in executing the excavation and foundation work would lead to significant setbacks, resulting in the loss of valuable time during the rainy season. The director requested BWC for approval (as outlined in Clause II-3 of the Letter of Election Commission No. 437/6/INST/ECI/FUNCT/MCC/2024(MCC Enforcement)/288 dated January 02, 2024) to initiate the construction project, considering that work has already commenced. All members of the BWC expressed the view that the construction project would not interfere with the election process in any

way. Therefore, the BWC suggested proceeding with the construction project to ensure its timely completion as scheduled.

[Annexure-A2, Page No. 11]

B) REVIEW OF ONGOING PROJECTS

BWC: 50(2024)-04: Review of ongoing Civil Projects

A report on the progress of ongoing Civil Projects is enclosed for the perusal of the committee.

BWC noted the information. BWC did not notice any major delay in the current progress of civil works.

[Annexure-A3, Page No. 12 - 13]

BWC: 50(2024)-05: Review of ongoing Electrical Projects

A report on the progress of ongoing Electrical Projects is enclosed for the perusal of the committee.

BWC noted the information. BWC did not notice any major delay in the current progress of electrical works.

[Annexure-A4, Page No. 14]

C) APPROVAL FOR PROJECTS: (PART- 'A')

BWC: 50(2024)-06: Additional scope of work for the rectification of buildings constructed under Phase I and Phase II of the major projects

BWC: 45 (2022)-04 approved a budget of ₹39 crores from the Institute's corpus funds for the rectification work of buildings constructed under Major Projects Phase I and Phase II, including the Golden Jubilee building, based on the anticipated scope of work. Similarly, BWC: 41 (2021)-03-2 approved ₹29.12 crores for setting up a chiller plant for Major Project Phase – II, partially from the Institute's corpus and balance from OH-35. CPWD is currently undertaking both projects. However, during execution, additional scope of work has emerged, which was not initially anticipated. This includes repairs to damaged flooring, false ceiling, U-PVC windows with SGU glass, exterior and interior painting of the Golden Jubilee Building, repair of HVAC low-end work, and other electrical works to meet fire safety requirements. CPWD has submitted a revised Preliminary Estimate (PE) for these additional works, estimated to cost ₹19.04 crores (Civil Works = ₹13.00 crores + ₹1.21 crores and Electrical Works = ₹4.83 crores). Approximately ₹8 crores may be sourced from savings from previous tendered work, while an additional ₹11.04 crores is needed to accomplish this task. It is proposed that the BWC approve the additional scope of work and the requirement for additional funding.

Estimated cost – ₹ 11.04 Crores

Source of the fund – Corpus Funds

BWC recommended this proposal to FC for approval.

[Annexure – A5, Page No. 15 - 41]



BWC: 50(2024)-07: Acoustic wall paneling and false ceilings in 11 classrooms in Lecture Hall Complex – I

Lecture Hall Complex-I of our institute was constructed 13 years ago without considering acoustic requirements. Some of the classrooms in this building accommodate a student strength ranging from 125 to 300. Many of these classrooms have curved walls, leading to focused reflections of sound and echoes. As a result, students are forced to learn in environments that are chaotic and confusing rather than supportive and enriching. Therefore, it is proposed to install acoustic wall paneling and false ceilings in 11 such classrooms. The estimated cost of the above project will be approximately ₹1.07 Crores, excluding GST.

Estimated cost – ₹1.07 Crores
Source of the fund – OH-35


BWC approved this proposal.

[Annexure – A6, Page No. 42 - 44]

D) APPROVAL OF BOQ AND ESTIMATE FOR TENDERING NEW PROJECT [PART 'B']: NIL

E) APPROVAL OF TENDER FOR AWARD OF WORK [PART 'C']: NIL

F) DEVIATION, EXTRA ITEMS FOR VARIOUS WORKS & POINTS FOR INFORMATION OF BWC [PART-'D']: NIL



25/04/2024

**(Prof. Rohan Dhiman)
Registrar & Member Secretary
Building & Works Committee**



25.4.24

**(Prof. K. Umamaheshwar Rao)
Director & Chairman
Building & Works Committee**



**National Institute of Technology
Rourkela**

MINUTES

**49th Meeting of
Building & Works Committee**

DATE : 27th December, 2023 (Wednesday)
TIME : 05:30 P.M.
VENUE : Board Room, NIT, Rourkela



राष्ट्रीय प्रौद्योगिकी संस्थान, राउरकेला
National Institute of Technology, Rourkela

49th Building & Works Committee, National Institute of Technology, Rourkela, held on
27.12.2023 (Wednesday) at 05:30 PM in the Board Room & Google Meet (online) of the Institute

Members Present

1. **Prof. K. Umamaheshwar Rao**
Director & Chairman, BWC
NIT, Rourkela
2. **Ms Veena Dunga** [Through online mode]
Deputy Secretary (NITs),
Technical Section - III (NITs Desk),
Department of Higher Education,
Ministry of Education (Shiksha Mantralaya),
Government of India,
Room No.435, C - Wing,
Shastri Bhawan, New Delhi – 110115
3. **Shri Anil Kumar** [Through online mode]
Director, Finance
Ministry of Education (Shiksha Mantralaya), Government of India,
Department of Secondary & Higher Education,
Shastri Bhawan, New Delhi – 110001
4. **Shri Dillip Kumar Sahoo**
GM, Projects (Civil)
SAIL, RSP, Rourkela
5. **Shri Sanjay Kumar Pradhan**
GM, Tower Engg (Elect)
SAIL, RSP, Rourkela
6. **Prof. Pradip Sarkar**
Professor, Civil Engineering & Dean (PD)
NIT, Rourkela
7. **Prof. Rohan Dhiman**
Registrar & Member Secretary, BWC,
NIT, Rourkela

Invitees Present

8. **Prof. S. Karmakar, EE**
Associate Dean PD (MEP), NIT Rourkela
9. **Mr. Bimalendu Mohanty**
HOD (EM), Superintending Engineer, NIT Rourkela

Special Invitee Present

- 10. Mr. Mohammad Thopic** [Through online mode]
Managing Director & CEO
Higher Education Financing Agency
1st Floor, Stock Exchange Towers
1st Cross, J C Road
BENGALURU – 560 027

Members & Invitees Absent

- 11. Shri B. K. Pati**
Executive Engineer
PWD, Uditnagar, Rourkela
- 12. Prof. Ashok Kumar Turuk**
Professor, Computer Science and Engineering & Member,
BOG, NIT, Rourkela
- 13. Prof. R. N. Behera, CE**
PIC(Civil Works), NIT, Rourkela
- 14. Prof. S. Anbarasu, ME**
PIC(HVAC), NIT Rourkela
- 15. Mr. Joydip Mondal**
Senior Executive Engineer, Estate, NIT Rourkela
- 16. Mr. Rajesh Kumar Sahoo**
Executive Engineer (E), Estate, NIT Rourkela



राष्ट्रीय प्रौद्योगिकी संस्थान राउरकेला
National Institute of Technology Rourkela

Minutes of the 49th Meeting of Building & Works Committee, National Institute of Technology Rourkela, held on 27-12-2023 at 05.30 P.M. in the Board Room of the Institute.

A) GENERAL AND PROCEDURAL MATTERS

BWC: 49(2023)-01: Welcome to the members by the Chairman of the BWC.

The Director and Chairman BWC welcomed all the members to the meeting.

BWC: 49(2023)-02: Confirmation of the minutes of the 48th meeting of the BWC held on 13.10.2023.

The minutes of the 48th meeting were sent to the members, and no comments were received from members.

[Annexure - A1, Page No. 5 - 10]

BWC confirmed the minutes of the 48th BWC meeting.

BWC: 49(2023)-03: To report on the action taken on the decisions made in the 48th BWC held on 13.10.2023 and to discuss matters arising out of the minutes.

The report on the action taken on the decisions made in the 48th Meeting of the BWC held on 13.10.2023 is presented for BWC's consideration.

[Annexure-A2, Page No. 11]

BWC noted the information.

B) REVIEW OF ONGOING PROJECTS

BWC: 49(2023)-04: Review of ongoing Civil Projects.

A report on the progress of ongoing Civil Projects is enclosed for the committee's perusal.

[Annexure-A3, Page No. 12 - 14]

BWC noted the information. BWC did not notice any major delay in the current progress of civil works.

BWC: 49(2023)-05: Review of ongoing Electrical Projects.

A report on the progress of ongoing Electrical Projects is enclosed for the committee's perusal.

[Annexure-A4, Page No. 15]

BWC noted the information. BWC did not notice any major delay in the current progress of electrical works.

C) APPROVAL FOR PROJECTS: (PART- 'A')

BWC: 49(2023)-06: Construction of non-teaching staff quarters – 36 numbers Type – III Qtrs. (S+6) and 36 numbers Type – II Qtrs. (S+6).

Over the years, there has been a significant increase in non-teaching staff. There is an acute shortage of staff quarters for non-teaching staff, and they are already facing many hardships. The problem will be more severe in the coming years when their demand for more quarters will increase further. The proposed construction plan entails two blocks, collectively comprising 72 flats. Specifically, one block is designated for 36 Type II flats, while the other will accommodate 36 Type III flats. To facilitate this development, a preliminary estimate of ₹35.49 Crores has been prepared by CPWD Rourkela.

Estimated cost – ₹35.49 Crores

Source of the fund – Corpus

[Annexure – A5, Page No.16 - 28]

BWC recommended this proposal to FC for approval.

D) APPROVAL OF BOQ AND ESTIMATE FOR TENDERING NEW PROJECT [PART 'B']:

BWC: 49(2023)-07: Revision in Estimates for HEFA Funded Projects.

In response to our request, CPWD submitted Rough Cost Estimates (RCEs) totaling ₹165.81 crores in May 2022 for the construction of a 1000-seated boys hostel, 500-seated girls hostel, 72-unit faculty residence, and a 1.5 MLD sewage treatment plant. Subsequently, the 44th BWC and the 62nd FC recommended these estimates for HEFA funding. The approval for the HEFA loan was granted on July 28, 2023. Following the signing of the MoU with the HEFA on September 27, 2023, the Institute officially sanctioned the projects to CPWD on October 31, 2023.

Upon receiving the sanction from the Institute, CPWD prepared preliminary architectural drawings and estimates, resulting in a revised estimate of ₹210.57 crores. The increase of ₹44.76 crores can be attributed to several factors, including a time lag of 1.5 years, an increase in GST rates, a 2.69% rise in the plinth area, and other associated costs. To grant A/A and E/S for these HEFA-funded projects, it is proposed that the BWC consider covering this additional cost from HEFA.

Sl. No.	Name of the Projects	Initial Estimate (₹ in Cr.)	Revised Estimate (₹ in Cr.)	Additional Cost (₹ in Cr.)
1	1000 seated Boy's Hostel	77.53	100.42	22.89
2	500 seated Girl's Hostel	38.87	43.67	4.80
3	1.5 MLD STP	13.21	13.64	0.43
4	Faculty Residence (72 flats)	36.20	52.84	16.64
-	Total	165.81	210.57	44.76

Estimated cost – ₹ 44.76 Crores

Source of the fund – HEFA

[Annexure-A6, Page No. 29 - 79]

BWC recommended this proposal, in principle, to the FC for approval. BWC advised that the Institute submit an application seeking possible directions from the Secretary, Ministry of Education (MoE), for availing a HEFA loan to cover the additional cost of ₹44.76 Crores. It is further advised that the application includes a detailed breakdown of the increased cost, highlighting factors such as the rise in the Plinth Area Rates of CPWD, the increase in GST rates, and the increase of the plinth area.

BWC: 49(2023)-08: Revision in Estimates for 500 seated EWS Girls' Hostel.

The revised estimate for constructing the 500-seated EWS Girls' Hostel has increased by ₹8.67 Crores, similar to the reasons explained in item number BWC: 49(2023)-07. It is proposed that the BWC allows the Institute to approve the additional expenditure to CPWD without the immediate availability of funds. Additionally, it is proposed that the BWC consider covering this extra cost from a suitable source if the need for funds arises later.

Name of the Projects	Initial Estimate (₹ in Cr.)	Revised Estimate (₹ in Cr.)	Additional Cost (₹ in Cr.)
500 seated Girl's Hostel	35.00	43.67	8.67

[Annexure-A7, Page No. 80 - 91]

BWC recommended this proposal to FC for approval.

BWC: 49(2023)-09: Revision in Estimates for 500 seated MCL Girls' Hostel.

The estimated cost for constructing the 500-seated MCL Girls' Hostel has experienced an increase of ₹9.08 Crores, primarily attributed to alterations in the plinth area. According to the terms and conditions, the MCL funding is contingent on the lower of the approved value (₹42.69 Crores) and the work order value. To address this adjustment, it is proposed that the BWC allows the Institute to authorize additional expenditure to CPWD without the immediate availability of funds. The Institute will approach MCL for the necessary financial support if there is a later fund requirement.

Name of the Projects	Initial Estimate (₹ in Cr.)	Revised Estimate (₹ in Cr.)	Additional Cost (₹ in Cr.)
500 seated Girl's Hostel	42.69	51.77	9.08

[Annexure-A8, Page No. 92 - 103]

BWC recommended this proposal to FC for approval.

BWC: 49(2023)-10: Revision in Estimates for Kendriya Vidyalaya.

The estimated cost for the proposed Kendriya Vidyalaya has been revised to meet the specifications mandated by Kendriya Vidyalaya Sangathan and the funding agency, M/s Coal India Limited. The complete amount for the revised estimate, totaling ₹50.01 crores, will be provided by M/s Coal India Limited.

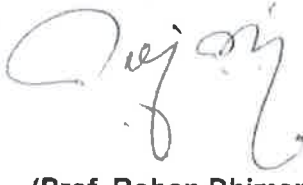
Name of the Projects	Initial Estimate (₹ in Cr.)	Revised Estimate (₹ in Cr.)	Additional Cost (₹ in Cr.)
Kendriya Vidyalaya	38.74	50.01	11.27

[Annexure-A9, Page No. 104 - 131]

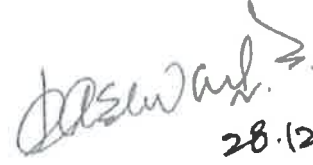
BWC recommended this proposal to FC for approval.

E) APPROVAL OF TENDER FOR AWARD OF WORK [PART 'C']: NIL

F) DEVIATION, EXTRA ITEMS FOR VARIOUS WORKS & POINTS FOR INFORMATION OF BWC [PART-'D']: NIL


28/12/2023

(Prof. Rohan Dhiman)
Registrar & Member Secretary
Building & Works Committee


28.12.23

(Prof. K. Umamaheshwar Rao)
Director & Chairman
Building & Works Committee

**Report on the action taken on the decisions made in the 49th Meeting
of BWC held on 27.12.2023**

BWC item No.	Item Descriptions	Action taken
<i>BWC: 49(2023)-01</i>	Welcome to the members by the Chairman.	NA
<i>BWC: 49(2023)-02</i>	Confirmation of the minutes of the 48th meeting of the BWC held on 13.10.2023.	NA
<i>BWC: 49(2023)-03</i>	To report on the action taken on the decisions made in the 48th BWC held on 13.10.2023 and to discuss matters arising out of the minutes.	NA
<i>BWC: 49(2023)-04</i>	Review of ongoing Civil Projects	NA
<i>BWC: 49(2023)-05</i>	Review of ongoing Electrical Projects	NA
<i>BWC: 49(2023)-06</i>	Construction of non-teaching staff quarters – 36 numbers Type – III Qrts (S+6) and 36 numbers Type – II Qrts (S+6)	All these proposals were approved by FC-68(2024)-03. Following the suggestion of the BoG, these projects were combined together into one package and sanctioned to CPWD. CPWD has already floated the tender for these projects in EPC mode.
<i>BWC: 49(2023)-07</i>	Revision in Estimates for HEFA Funded Projects	
<i>BWC: 49(2023)-08</i>	Revision in Estimates for 500 seated EWS Girls' Hostel	
<i>BWC: 49(2023)-09</i>	Revision in Estimates for 500 seated MCL Girls' Hostel	This proposal has been approved by FC-68(2024)-03, and the work has been sanctioned to CPWD. CPWD has completed the tender process for this project and is currently in the process of issuing the work order.
<i>BWC: 49(2023)-10</i>	Revision in Estimates for Kendriya Vidyalaya	

Status of on-going works by CPWD at Bhubaneswar for NIT, Rourkela as on 23.04.2024

Sl. No.	Name of the Work	Preliminary Estimate by		AA & ES of PE		Tendering Status	Name of the Executing Agency	Work Order No. & Date	Awarded Value of the Work	Date of Commencement	Stipulated Date of Completion	Date of Completion as per MoU	Upto date Expenditure made by CPWD	Present Status of the		Remarks
		Amount (Rs.)	Date of Submission	Amount (Rs.)	Date of Sanction									Physical (%)	Financial (%)	
1	Construction of Academic Building of NIT, Rourkela at Bhubaneswar including Internal Water Supply, Sanitary Installation, internal Electrical installation and lift etc.	Rs. 19,93,70,980.00	05.03.2021	Rs. 19,93,70,980.00	Dated 07.04.2021	Work awarded	M/s Multi Tech Construction Co, New Delhi	Agreement No. 15/CE/EE-BBSR-III/CPWD/2023-24 dated 16.09.2023	Rs. 13,35,58,771.00 (Civil: Rs. 9,35,97,444/- + Elect Rs. 3,99,61,327/-)	20.09.2023	19.07.2024	19.07.2024	104448357	60%	53%	All RCC work completed except auditorium; Brickwork, plastering completed upto 3rd floor; Brickwork, plastering is in progress in 4th & 5th floor; Flooring work is in progress.
	Construction of vertical extension of additional floors on existing S+3 at NIT, Rourkela at Bhubaneswar	Rs. 7,89,35,200.00	26.05.2022	Rs. 7,89,35,200.00												

Status of On-going Civil works by CPWD at NIT, Rourkela up to 23.04.2024

Sl. No.	Name of the Work	AA & ES of PE		Tendering Status	Name of the Executing Agency	Agreement No. & Date	Awarded Value of the Work	Date of Commencement	Stipulated Date of Completion	Revised date Date of Completion	Upto date Expenditure made by CPWD	Present Status of the Work		Remarks
		Amount (Rs.)	Date of Sanction									Physical (%)	Financial (%)	
1	Construction of Sports and Common Facilities Comp.ex for NIT Rourkela at Rourkela, Odisha	249900000.00	NITR/RG/2020/L/0227& Dt.20.03.2020	Work in Progress	M/s Junaid Enterprises	14/EE/SD/06/NIT/CE/CPWD/BBSR/ 2022-23	19,64,58,401.00	24.10.2022	23.10.2023	31.07.2024	137506463.00	60%	55.01%	1 RCC work 98% Completed 2 Brick work 90% completed 3 Plastered work 70% completed 4 Plumbing work 60% completed 5 Flooring work in Progress 6 Electrical work 30% completed
2	Construction of 1030 Seated Open Air Theatre (OAT) at NIT Rourkela	60000000.00	NITR/RG/2020/L/ 0477 & Dt.10.07.2020	Work in Progress	M/s Junaid Enterprises	24.10.2022					17157000.00	50%	28.60%	1 RCC work 90% Completed 2 Brick work 75% completed 3 Plastered work 50% completed 4 Plumbing work 60% completed 5 Electrical work 20% completed
3	Providing and Fixing expansion joint system in Golden Jubilee building at NIT Rourkela, Odisha	3581000.00	Registrar NIT R No: NITR/ RG/ 2022/ L/ 0873 dated 06.12.2022	Work in Progress except Sl No-5	M/s Swaraj Construction	21/EE/SD/12/NIT/ SE-Sambalpur/CPWD/2022-23(Modified)	6,76,28,979.00	22.04.2023	21.01.2024	31.05.2024	3000000.00	85%	83.78%	1) Dismantling of stone cladding completed 2) External plastering completed 3) External primer & texture work in progress 4) Dismantling of grading of Golden Jubilee building completed 5) PU water proofing of Golden Jubilee Building completed 6) Grading of 7th Floor Completed 7) Cool roof tiles fixing in Golden Jubilee in Progress 8) Expansion Joints work in Golden Jubilee Building in progress 9) Grill work of FRA & FRB is in progress
4	Providing and Fixing Windows grill above 4th Floor in Golden Jubilee Building at NIT Rourkela, Odisha	5662000.00	Registrar NIT R No: NITR/ RG/ 2022/ L/ 0873 dated 06.12.2022								4000000.00	75%	70.65%	
5	Providing and Fixing 300x300x10mm cool roof tiles over Golden Jubilee building, at NIT Rourkela, Odisha	19565000.00	Registrar NIT R No: NITR/ RG/ 2023/ L/ 0873 dated 09.12.2022								9736825.00	50%	49.77%	
6	Removal of existing stone cladding from the external wall of the Biomedical Building, Electrical Science building and Lecture Hall Complex-I and 18 mm cement plaster in	60085000.00	Registrar NIT R No: NITR/ RG/ 2022/ L/ 0873 dated 06.12.2022								53409530.00	90%	88.89%	
7	Raising the height of the railing in the Balcony of FRA and FRB Quarters at NIT Rourkela, Odisha	20184000.00	Registrar NIT R No: NITR/ RG/ 2022/ L/ 0873 dated 06.12.2022								7900114.00	40%	39.14%	
8	Construction of Connecting corridor and Canteen between Lecture Complex-I and Lecture Complex-II at NIT, Rourkela (Odisha)	96307000.00	Registrar NIT R No: NITR/ RG/ 2023/ L/ 0040 dated 20.01.2023	Work awarded	M/s Swaraj Construction	06/EE/RKL//CPWD/2023-24	5,78,52,204.00	15.1.2024	14.01.2025	14.01.2025	375701.00		0.39%	Site mobilisation is in progress. Many services lines are existing in the premises yet to be removed.
9	Construction of Boundary wall with gate for at Back side of NIT, Rourkela, (Odisha)	51249000.00	Registrar NIT R No: NITR/ RG/ 2023/ L/ 0040 dated 20.01.2023	Work in Progress	M/s Master Construction	04/EE/RKL/CPWD/2023-24	3,31,56,649.00	31.11.2023	30.07.2024	30.09.2024	2362901.00	5%	4.61%	Forest Clearance received on dated 01.01.2024. Work in progress.
10	Construction of 8 Lakhs liters capacity 25 Metres Staging Height RCC over head tank (OHT) at NIT Rourkela (Odisha)	36300000.00	Registrar NIT R No: NITR/ RG/ 2023/ L/ 0102 dated 09.02.2023	Work in Progress	JRC Infra	03/EE/RKL/CPWD/2023-24	3,00,99,479.00	17.08.2023	16.07.2024	16.07.2024	14872186.00	50%	49.41%	Bottom dome casted. Conical wall & landing work in progress.
11	Renovation of Toilet of all 84 Units of faculty Residence at NIT, Rourkela, Odisha	36875000.00	Registrar NIT R No: NITR/ RG/ 2023/ L/ 0146 dated 22.02.2023	Work in Progress	M/s Udra Construction Private Limited	23/EE/SD/12/NIT/SE-Sambalpur/CPWD/2022-26	3,23,66,174.00	07.05.2023	06.03.2024	30.06.2024	12291000.00	40%	38.00%	86 nos toilets completed and used by the occupants. In addition 30 toilets repair work is in progress. Labour and materials are moving/ operating through outside scaffolding & hence work progress hampering.
12	Providing and Fixing Shed over roof of Lecture Hall Complex-II, Mechanical Science building, Faculty residence A and B (FRA & FRB) including necessary truss at NIT, Rourkela, Odisha	108270000.00	NITR/ RG/ 2023/ L/ 0146 dated 22.02.2023	Work in Progress	M/s Vijay Singh & Sons	01/EE/SD/12/NIT/SE-Sambalpur/CPWD/2022-27	6,70,08,182.00	28.05.2024	27.01.2024	30.06.2024	16330852.00	30%	15.08%	1) Truss and sheet work including gutter in FRB completed 2) Truss and sheet work including gutter in FRA completed 3) The existing solar panel in the Roof of LC-II & Mech. Science building to be cleared by Client for further execution of work.

Sl. No.	Name of the Work	AA & ES of PE		Tendering Status	Name of the Executing Agency	Agreement No. & Date	Awarded Value of the Work	Date of Commencement	Stipulated Date of Completion	Revised date Date of Completion	Upto date Expenditure made by CPWD	Present Status of the Work		Remarks
		Amount (Rs.)	Date of Sanction									Physical (%)	Financial (%)	
1	HVAC project for golden jubilee building, Mech science building & lecture complex-I I/c plant room and SITC of Substation for AC plant t NIT rourkela(SH: SITC of HVAC system for 3-years on EPC basis.	291234000.00	Registrar NIT R No: NITR/ RG/ 2021/ L/ 0597 dated 28.07.2021	Work in Progress	M/s Udra Construction Private Limited	3/EEe-Sambalpur/ 2022-23	19,52,40,000.00	20.12.2022	19.08.2023	15.05.2024	182621920.00	95%	85.00%	1 Chilled water & Condenser water Piping 98% completed. 2 SITC of Chiller 80% completed 3 SITC of LT Panel, HT Panel, VFD Panel, Transformer 80% completed. 4 Testing and Commissioning of all equipment pending
2	Fire Fighting works, Pressurization of lift lobby, staircase and ventilator of corridor for Golden Jubilee building at NIT Rourkela.	45517000.00	Registrar NIT R No: NITR/ RG/ 2023/ L/ 0146 dated 22.02.2023	Tendering to be done										

GENERAL ABSTRACT OF COST

PE No : 01/ PE/ SE-SAMBALPUR/CPWD/2024-25

Name of Work: : Special repairs to Golden Jubilee Building including Replacement of Damaged Flooring, False ceiling, Internal painting, External painting, Partition work and Miscellaneous works in the Golden Jubilee Building at NIT Rourkela, Odisha.

S. No	Sub- Head	Sub-Head Description	Amount
1	SH-1	Replacement of damaged flooring in the Golden Jubilee Building	22968577.00
2	SH-2	Replacement of damaged False ceiling in the Golden Jubilee Building	36534353.00
3	SH-3	Internal painting in the Golden Jubilee Building	17246127.00
4	SH-4	External Painting in the Golden Jubilee Building	21779732.00
5	SH-5	Partition wall and Miscellaneous Works Golden Jubilee Building	22651061.00
		Total	121179850.00
		Add for EPF and ESI @ 4.25%	5150144.00
		Add Contigencies @ 3%	3635396.00
		Grand Total	129965390.00
		Say	129965000.00

ASSISTANT ENGINEER-II
CPWD, ROURKELA

EXECUTIVE ENGINEER- ROURKELA
CPWD, ROURKELA

ASSISTANT ENGINEER (EI)
CPWD, ROURKELA

EXECUTIVE ENGINEER(EL)- SAMBALPUR
CPWD,SAMBALPUR

ASSISTANT ENGINEER (P)
O/o SUPERINTENDING ENGINEER-SAMBALPUR

SUPERINTENDING ENGINEER-SAMBALPUR
CPWD,SAMBALPUR

ABSTRACT OF COST

Name of Work : Special repairs to Golden Jubilee Building including Replacement of Damaged Flooring, False ceiling, Internal painting, External painting, Partition work and Miscellaneous works in the Golden Jubilee Building at NIT Rourkela, Odisha.

SH-1:- Replacement of damaged flooring in the Golden Jubilee Building at NIT Rourkela, Odisha

SL No	DSR-23	Description of Items	Unit	Qty	Rate (Rs.)	Amount (Rs.)
1	4	CEMENT CONCRETE (CAST IN situ)				
1.1	4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :				
1.1.1	4.1.3	1:2:4 (1 cement : 2 coarse sand(zone-III) derived from natural sources : 4 graded stone aggregate 20 mm nominal size derived from natural sources)	cum	169.00	7878.50	1331467.00
2	11	FLOORING				
2.1	11.41A	Providing and laying Vitrified tiles in floor in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid on 20 mm thick cement mortar 1:4 (1 cement:4 coarse sand) jointing with grey cement slurry @3.3 kg/sqm including grouting the joints with white cement and matching pigments etc. The tiles must be cut with the zero chipping diamond cutter only . Laying of tiles will be done with the notch trowel, plier, wedge, clips of required thickness, leveling system and rubber mallet for placing the tiles gently and easily				
2.1.1	11.41A.1	Double charge vitrified tile polished finish of size				
2.1.1.1	11.41A.1.2	Size of Tile 800 x 800 mm	sqm	8087.00	1534.85	12412332.00
2.2	11.46	Providing and laying Vitrified tiles in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade, in skirting, riser of steps, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joint with white cement & matching pigments etc. complete				
2.2.1	11.46.3	Size of Tile 800x800 mm	sqm	809.00	1958.45	1584386.00
2.3	11.48	Grouting the joints of flooring tiles having joints of 3 mm width, using epoxy grout mix of 0.70 kg of organic coated filler of desired shade (0.10 kg of hardener and 0.20 kg of resin per kg), including filling / grouting and finishing complete as per direction of Engineer-in-charge.				
2.3.1	11.48.3	Size of Tile 800x800 mm	sqm	8896.00	244.75	2177296.00
2.4	11.56	Providing and laying Polished Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge				
2.4.1	11.56.1	Polished Granite stone slab colour of Black, Cherry/Ruby Red or equivalent	sqm	50.00	4481.30	224065.00
2.5		Providing and fixing 18mm thick gang saw cut (polished and machine cut) granite stone slab in skirting, risers of steps skirting and dado and pillar laid on 12mm (average) thick cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with white cement slurry mixed with pigment to match the shade of the slabs including rubbing and polishing complete. (Granite stone for riser of steps shall be in one single piece and nothing extra shall be paid.)				
2.5.1	MR	Polished Granite stone slab colour of Black, Cherry/ Ruby Red or equivalent	sqm	143.00	4179.70	597697.00
3	15	Dismantling and Demolishing				
3.1	15.23	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.				
3.1.1	15.23.1	For thickness of tiles 10 mm to 25 mm	sqm	8896.00	73.40	652966.00
3.2	15.25	Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 metres lead	sqm	500.00	266.45	133225.00

SL No	DSR-23	Description of Items	Unit	Qty	Rate (Rs.)	Amount (Rs.)
3.3	15.6	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	cum	469.00	263.95	123793.00
3.4	MR	Miscellaneous work required during execution.				2000000.00
		TOTAL				21237227.00
		Add Cost Index @ 9% on DSR -2023 Items				17,31,350.00
		TOTAL				2,29,68,577.00

Assistant Engineer-II
CPWD, Rourkela

Executive Engineer-Rourkela
CPWD, Rourkela

Assistant Engineer-II (P)
O/o Superintending Engineer- Sambalpur
CPWD, Sambalpur

ABSTRACT OF COST

Name of Work : Special repairs to Golden Jubilee Building including Replacement of Damaged Flooring, False ceiling, Internal painting, External painting, Partition work and Miscellaneous works in the Golden Jubilee Building at NIT Rourkela, Odisha.

SH-2:- Replacement of damaged False ceiling in the Golden Jubilee Building at NIT Rourkela, Odisha.

SL No	DSR-23	Description of Items	Unit	Qty	Rate (Rs.)	Amount (Rs.)
1	12	ROOFING				
1.1	12.59	Providing & fixing false ceiling at all height including providing & fixing of framework made of special section, power pressed from M.S. sheets and galvanised with zinc coating of 120 gms/ sqm (both side inclusive) as per IS : 277 and consisting of angle cleat of size 25mm wide x 1.6mm thick with flanges of 27mm and 37mm, at 1200mm c/c, one flange fixed to the ceiling with dash fastener 12.5mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25 x10 x0.50mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I channels 45 x15 x 0.90mm running at the spacing of 1200 mm c/c, to which the ceiling section 0.5mm thick bottom wedge of 80mm with tapered flanges of 26 mm each having lips of 10.5mm, at 450mm c/c, shall be fixed in a direction perpendicular to G.I intermediate channel with connecting clip made out of 2.64mm dia x 230mm long G.I.				
		wire at every junction, including fixing perimeter channels 0.50mm thick 27mm high having flanges of 20mm and 30mm long, the perimeter of ceiling fixed to wall/ partitions with the help of Rawl plugs at 450mm centre, with 25mm long dry wall screws @ 230mm interval, including fixing of Calcium Silicate Board to ceiling section and perimeter channels with the help of dry wall screws of size 3.5 x25mm at 230mm c/c, including jointing & finishing to a flush finish of tapered and square edges of the board with recommended jointing compounds, jointing tapes, finishing with jointing compounds in three layers covering up to 150mm on both sides of joints and two coats of primer suitable for boards, all as per manufacture's specification and also including the cost of making opening for light fittings, grills, diffusers, cut outs made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in charge but excluding the cost of painting with:				
1.1.1	12.59.1	8 mm thick Calcium Silicate Board made with Calcareous & Siliceous materials reinforced with cellulose fiber manufactured through autoclaving process.	sqm	6469.00	1572.30	10171209.00
1.2	26.22	Providing and fixing false ceiling at all heights with integral densified calcium silicate reinforced with fibre and natural filler false ceiling tiles of Size 595x595mm of approved texture, design and patterns having NRC (Noise Reduction coefficient) of 0.50 (minimum) as per IS 8225:1987, Light reflectance of 85% (minimum).				

SL No	DSR-23	Description of Items	Unit	Qty	Rate (Rs.)	Amount (Rs.)
		Non combustible as per BS:476 (part-4), fire performance as per BS:476 (part 6 &7), humidity resistance of 100%, thermal conductivity < 0.043 W/m K as per ASTM 518:1991, in true horizontal level suspended on interlocking metal T-Grid of hot dipped galvanised iron section of 0.33mm thick (galvanized @ 120 grams per sqm including both sides) comprising of main-T runners of size 24x38 mm of length 3000 mm, cross - T of size 24x32 mm of length 1200 mm and secondary intermediate cross-T of size 24x32 mm of length 600mm to form grid module of size 600 x 600 mm, suspended from ceiling using galvanised mild steel items (galvanizing @ 80 grams per sqm) i.e. 50 mm long, 8 mm outer diameter M-6 dash fasteners, 6 mm dia fully threaded hanger rod upto 1000 mm length and L-shape level adjuster of size 85x25x25x2 mm.				
		Galvanised iron perimeter wall angle of size 24x24x0.40 mm of length 3000 mm to be fixed on periphery wall / partition with the help of plastic rawl plugs at 450 mm center to center and 40 mm long dry wall S.S screws. The work shall be carried out as per specifications, drawing and as per directions of the Engineer-in-Charge.				
1.2.1	26.22.1	With 15 mm thick tegular edged light weight calcium silicate false ceiling tiles.	sqm	9704.00	2207.00	21416728.00
2	15	Dismantling and Demolishing				
2.1	15.57	Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable material and stacking of serviceable material with in 50 meters lead as directed by Engineer-in-charge.	sqm	14556.00	56.35	820231.00
2.2	15.6	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	cum	728.00	263.95	192156.00
2.3		Miscellaneous works				1000000.00
		TOTAL				33600324.00
		Add Cost Index @ 9% on DSR -2023 Items				29,34,029.00
		TOTAL				3,65,34,353.00

Assistant Engineer-II
CPWD, Rourkela

Executive Engineer-Rourkela
CPWD, Rourkela

Assistant Engineer-II (P)
O/o Superintending Engineer- Sambalpur
CPWD, Sambalpur

ABSTRACT OF COST

Name of Work : Special repairs to Golden Jubilee Building including Replacement of Damaged Flooring, False ceiling, Internal painting, External painting, Partition work and Miscellaneous works in the Golden Jubilee Building at NIT Rourkela, Odisha.

SH-3:- Internal painting in the Golden Jubilee Building at NIT Rourkela, Odisha

SL No	DSR-23	Description of Items	Unit	Qty	Rate (Rs.)	Amount (Rs.)
1	13	FINISHING				
		Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	sqm	17100.00	156.05	2668455.00
1.1	13.8					
		Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.				
1.2	13.83					
1.2.1	13.83.2	Two coats	sqm	51800.00	142.80	7397040.00
		Removing dry or oil bound distemper, water proofing cement paint and the like by scrapping, sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.	sqm	45300.00	25.15	1139295.00
1.3	13.91					
		Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content.				
1.4	13.85					
1.4.1	13.85.3	With water thinnable cement primer on wall surface having VOC content less than 50 grams/litre	sqm	51800.00	73.95	3830610.00
2	15	DISMANTLING AND DEMOLISHING				
		Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	cum	200.00	263.95	52790.00
2.1	15.60					
2.2		Miscellaneous works				800000.00
		TOTAL				15888190.00
		Add Cost Index @ 9% on DSR -2023 Items				13,57,937.00
		TOTAL				1,72,46,127.00

Assistant Engineer-II
CPWD, Rourkela

Executive Engineer-Rourkela

Assistant Engineer-II (P)
O/o Superintending Engineer- Sambalpur
CPWD, Sambalpur

ABSTRACT OF COST

Name of Work : Special repairs to Golden Jubilee Building including Replacement of Damaged Flooring, False ceiling, Internal painting, External painting, Partition work and Miscellaneous works in the Golden Jubilee Building at NIT Rourkela, Odisha.

SH-4:- External Painting in the Golden Jubilee Building at NIT Rourkela, Odisha

SL No	DSR-23	Description of Items	Unit	Qty	Rate (Rs.)	Amount (Rs.)
1	13	FINISHING				
1.1	13.91	Removing dry or oil bound distemper, water proofing cement paint and the like by scrapping, sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.	sqm	24600.00	25.15	618690.00
1.2	13.109	Finishing walls with water proofing cement paint/external primer of required shade :				
1.2.1	13.109.2	Old work (one or more coats @ 2.20 kg/10 sqm) complete.	sqm	24600.00	75.80	1864680.00
2	15	DISMANTLING AND DEMOLISHING				
2.1	15.6	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	cum	200.00	263.95	52790.00
3	22	WATER PROOFING				
3.1	MR	Providing and Applying priming coat of exterior primer applied @ 2.20 kg/10 sqm all complete as per direction of Engineer-in-charge.	sqm	24600.00	81.60	2007360.00
3.3	22.24A	Providing & Applying high quality acrylic modified resin based texture of Dholpur/Red sand stone Pattern with anti algae and UV resistance properties to be applied as intermediate finish in desired pattern @ 43.04 kgs/10 sqm to form film of 1- 1.5 mm thickness after scrapping and properly cleaning the surface to remove loose particles from the plaster surface, followed by top coating with Premium Acrylic Smooth exterior paint with Silicone additives of required shade by two or more coats @ 1.43 litres/10 sqm, complete as the direction of Engineer -in-Charge.	sqm	24600.00	597.00	14686200.00
3.3		Miscellaneous works				1000000.00
		TOTAL				20229720.00
		Add Cost Index @ 9% on DSR -2023 Items				15,50,012.00
		TOTAL				21779732.00

Assistant Engineer-II
CPWD, Rourkela

Executive Engineer-Rourkela
CPWD, Rourkela

Assistant Engineer-II (P)
O/o Superintending Engineer- Sambalpur
CPWD, Sambalpur

ABSTRACT OF COST

Name of Work : Special repairs to Golden Jubilee Building including Replacement of Damaged Flooring, False ceiling,
SH-5:- Partition wall and Miscellaneous Works Golden Jubilee Building at NIT Rourkela, Odisha

Item No	DSR-23	Description of Items	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1		SH:- 1 CEMENT CONCRETE WORK				
1.1	4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :				
1.1.1	4.1.3	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size derived from natural sources)	cum	10.00	7878.50	78785.00
1.2	4.3	Centering and shuttering including strutting, propping etc. and removal of form work for :				
1.2.1	4.3.1	Foundations , footings , bases for columns	sqm	20.00	392.15	7843.00
2		SH:- 2 REINFORCED CEMENT CONCRETE WORK				
2.1	5.13	Providing, hoisting and fixing up to floor five level precast reinforced cement concrete in small lintels not exceeding 1.5m clear span up to floor five level, including the cost of required centering, shuttering but , excluding the cost of reinforcement with 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources).	cum	1.00	14325.95	14326.00
2.2	5.22A.	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.				
2.2.1	5.22A.6	Thermo-Mechanically Treated bars of grade Fe 500 D or more	Kg	150.00	107.85	16178.00
3		SH:- 3 MASONRY WORK				
3.1	6.15	Extra for providing and placing in position 2 Nos 6mm dia. M.S. bars at every third course of half brick masonry.	sqm	50.00	104.80	5240.00
3.2	6.45	Half brick masonry with non modular fly ash bricks with class designation 7.5, conforming to IS 12894, in super structure above plinth and upto floor V level				
3.2.1	6.45.2	cement mortar 1:4 (1 cement : 4 coarse sand)	sqm	50.00	1132.50	56625.00
4		SH:- 4 CLADDING WORK				
4.1	8.2	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills , facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels.				
4.1.1	8.2.2	Granite stone slab colour black, cherry/ ruby red				
4.1.1.1	8.2.2.1	Area of slab upto 0.50 sqm	sqm	10.00	5413.50	54135.00
4.1.1.2	8.2.2.2	Area of slab over 0.50 sqm	sqm	10.00	5136.30	51363.00

4.2	8.31	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	sqm	100.00	1267.95	126795.00
5		SH:- 5 WOOD & PVC WORK				
5.1	9.21	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters:				
5.1.1	9.21.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	sqm	120.00	2392.65	287118.00
5.2	9.101	Providing and fixing aluminium hanging floor door stopper, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade, with necessary screws etc. complete.				
5.2.1	9.101.2	Twin rubber stopper	each	50.00	72.35	3618.00
5.3	9.127	Providing & Fixing decorative high pressure laminated sheet of plain /wood grain in gloss / matt/ suede finish with high density protective surface layer and reverse side of adhesive bonding quality conforming to IS : 2046 Type S, including cost of adhesive of approved quality				
5.3.1	9.127.2	1.0 mm thick	sqm	2040.00	897.30	1830492.00
5.4	9.168	Providing and fixing cupboard shutter with 19mm thick one side decorative and other side balancing lamination factory pressed BWP grade marine ply as per IS 710 of approved brand including 2mm thick PVC edge banding tape with hot glue by edge bending machine etc. with auto closing spring loaded hinges (hydraulic type) etc. complete as per direction of Engineer-in-charge.(Payment of providing and fixing auto closing hinges shall be paid separately)	sqm	300.00	2829.25	848775.00
5.5	9.169	Providing and fixing 19mm thick both side balancing lamination factory pressed BWP grade marine ply as per IS 710 of approved brand boxes,shelves,racks,almirah,cupboard and drawer etc. including necessary nails,screws etc. complete as per direction of Engineer-in-charge.	sqm	600.00	2593.15	1555890.00
5.6	9.170	Providing and fixing stainless steel fancy handle of approved make fixed with SS screws etc. complete as per direction of Engineer-in-charge				
5.6.1	9.170.1	200 mm	each	200.00	186.65	37330.00

5.7	9.171	Providing and fixing stainless steel soft closing spring hinges at 0 degree hinges (hydraulic type) of approved make/brand to cupboard shutters with full threaded steel screws including making necessary recess in board and finished etc. complete as per direction of Engineer-in-charge.	each	200.00	272.00	54400.00
5.8	9.172	Providing and fixing stainless steel soft closing heavy type telescopic drawer channels of approved make 500 mm long with screws etc. complete as per directions of Engineer-in-charge.	each	100.00	885.10	88510.00
5.9		Providing & Fixing balancing lamination white colour high pressure laminated sheet of plain in gloss / matte finish with high density protective surface layer and reverse side of adhesive bonding quality conforming to IS : 2046 Type S, including cost of adhesive of approved quality.				
5.9.1	MR	0.80 mm thick	sqm	400.00	827.00	330800.00
5.10		Providing and fixing stainless steel tower bolts (barrel type) with necessary screws etc.of approved make like HELIX ,ZECON , PRAG etc and is equivalent to Pentagone model of Helix complete as per direction of Engineer in charge.				
5.10.1	MR	250x10 mm	each	60.00	425.10	25506.00
5.10.2	MR	150x10 mm	each	200.00	287.00	57400.00
5.11		Providing and fixing stainless steel sliding door bolts with necessary screws etc of approved make like HELIX ,ZECON , PRAG etc and is equivalent to Stylo model of Helix complete as per direction of Engineer in charge .				
5.11.1	MR	250x16 mm	each	60.00	570.00	34200.00
5.12		Providing and fixing Stainless Steel Plate Handle Round Heavy 200mm length with necessary screws etc of approved make like HELIX ,ZECON ; PRAG etc all complete as per the direction of Engineer-in-charge.				
5.12.1	MR	200 mm	each	120.00	118.10	14172.00
5.13	MR	Providing and fixing 9mm thick one side decorative/balancing lamination pressed BWP grade marine ply as per IS 710 of approved brand wall lining, boxes,shelves, racks, almirah ,cupboard and drawer etc. including necessary nails,screws etc. complete as per direction of Engineer-in- charge.(Payment of providing and fixing decorative/ balancing lamination shall be paid separately).	sqm	900.00	1455.40	1309860.00
6		SH:- 6 STEEL WORK				
6.1	10.27	Providing and fixing carbon steel galvanised (minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm ²), counter sunk head, comprising of 10 mm dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge.				
6.1.1	10.27.3	10 x 120 mm	each	400.00	170.95	68380.00

6.2	10.28	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	kg	2800.00	772.40	2162720.00
7		SH:- 7 FLOORING				
7.1	11.38	Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in all colours, shades, except White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick bed of cement mortar 1:4 (1 Cement : 4 Coarse sand), jointing with grey cement slurry @ 3.3 kg/ sq.m including pointing the joints with white cement and matching pigments etc., complete.	sqm	20.00	1315.30	26306.00
8		SH:- 8 DISMANTLING AND DEMOLISHING				
8.1	15.2	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.				
8.1.1	15.2.2	Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix)	cum	10.00	1503.60	15036.00
8.2	15.7	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge..				
8.2.1	15.7.4	In cement mortar	cum	20.00	2060.20	41204.00
8.3	15.12	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead :				
8.3.1	15.12.1	Of area 3 sq. metres and below	each	20.00	367.20	7344.00
8.4	15.23	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.				
8.4.1	15.23.1	For thickness of tiles 10 mm to 25 mm	sqm	100.00	73.40	7340.00
8.5	15.60	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	cum	300.00	263.95	79185.00
9		SH:- 9 SANITARY INSTALLATIONS				

9.1	17.7	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:				
9.1.1	17.7.4	White Vitreous China Flat back wash basin size 550x 400 mm with single 15 mm C.P. brass pillar tap	each	1.00	1879.20	1879.00
9.2	17.8	Providing and fixing white vitreous china pedestal for wash basin completely recessed at the back for the reception of pipes and fittings	each	1.00	1683.35	1683.00
9.3	17.28	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.				
9.3.1.1	17.28.1	Semi rigid pipe				
9.3.1.1	17.28.1.1	32 mm dia	each	1.00	103.90	104.00
9.4	17.31	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	each	1.00	1607.95	1608.00
9.5	17.35	Providing and fixing soil, waste and vent pipes :				
9.5.1	17.35.1	100 mm dia				
9.5.1.1	17.35.1.3	Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	metre	40.00	1169.30	46772.00
9.6	17.38	Providing and fixing bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.				
9.6.1	17.38.1	100 mm dia				
9.6.1.1	17.38.1.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	2.00	567.20	1134.00
9.7	17.43	Providing and fixing single equal plain junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.				
9.7.1	17.43.1	100x100x100 mm				
9.7.1.1	17.43.1.2	Centrifugally cast (spun) iron as per IS - 3989	each	2.00	925.70	1851.00
9.8	17.56	Providing and fixing terminal guard :				
9.8.1	17.56.1	100 mm				
9.8.1.1	17.56.1.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	2.00	427.80	856.00
9.9	17.57A	Providing and Fixing shielded coupling for Hubless centrifugally cast iron pipe.				
9.9.1	17.57A.1	100 mm				
9.9.1.1	17.57A.1.1	SS 304 grade coupling with EPDM Rubber gasket.	each	40.00	432.05	17282.00
9.10	17.60	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors :				
9.10.1	17.60.1	100 mm inlet and 100 mm outlet				
9.10.1.1	17.60.1.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	4.00	854.55	3418.00
9.11	17.74	Providing and fixing PTMT shelf 440 mm long, 124 mm width and 36 mm height of approved quality and colour, weighing not less than 300 gms.	each	1.00	713.20	713.00

9.12	17.77	Providing and fixing M.S. holder bat clamp of approved design to sand cast iron/ cast iron (spun) pipes comprising of M.S. flat brackets made of 50x5 mm flat of specified shape, projecting 75 mm outside the wall surface and fixed on wall with 4nos, 6mm dia expansion hold fasteners, including drilling necessary holes in brick wall/ CC/ RCC surface and the cost of bolts etc. The pipes shall be fixed to the already fixed brackets with the help of 30 mm x1.6 mm galvanised M.S. flats of specified shape and of total length 420 mm and shall be fixed with M.S. nuts, bolts, & washers of size 25x6 mm, one bolts on each side of the pipe				
9.12.1	17.77.1	Total bracket length 580 mm of approved shape and design (for single 100 mm dia pipe)	each	20.00	304.05	6081.00
9.13	17.81	Providing and fixing floor mounted, white vitreous china single piece, double traps syphonic water closet of approved brand/make, shape, size and pattern including integrated white vitreous china cistern of capacity 10 litres with dual flushing system, including all fittings and fixtures with seat cover, cistern fittings, nuts, bolts and gasket etc including making connection with the existing P/S trap, complete in all respect as per directions of Engineer-in-Charge.	each	1.00	18212.90	18213.00
9.14	MR	Providing and fixing White vitreous china flat back urinal of model URS-WHT-13257 of size 330X345X610mm of Jaquar make or of model Cat. No- 60020 FLAT BACK EUREKA of size 370x390 x600mm of Hindware make or model P0519PW TOPAZ HALF STALL of size390x390x610mm of Johnson make make including auto closing flush valve equivalent to model PRS-077 of Jaquar make and Spreder and C.P. upper connection (all in C.P. brass) with PVC waste pipe including making good the walls and floors wherever required as per the direction of Engineer-in-charge.	each	1.00	13673.70	13674.00
10		SH:- 10 WATER SUPPLY				
10.1	18.8	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge.				
10.1.1		Concealed work, including cutting chases and making good the walls etc.				
10.1.1.1	18.8.2	20 mm nominal outer dia Pipes	metre	10.00	537.60	5376.00
10.1.1.2	18.8.3	25 mm nominal outer dia Pipes	metre	10.00	627.25	6273.00
10.2	18.10	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc				
		Internal work - Exposed on wall				

10.2.1	18.10.3	25 mm dia nominal bore	metre	10.00	551.70	5517.00
10.2.2	18.10.5	40 mm dia nominal bore	metre	40.00	811.90	32476.00
		External work				
10.3	18.17	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :				
10.3.1	18.17.1	25 mm nominal bore	each	1.00	622.40	622.00
10.3.2	18.17.3	40 mm nominal bore	each	1.00	826.10	826.00
10.4	18.21	Providing and fixing uplasticised PVC connection pipe with brass unions :				
10.4.1	18.21.2	45 cm length				
10.4.1.1	18.21.2.1	15 mm nominal bore	each	2.00	97.75	196.00
10.5	18.38	Painting G.I. pipes and fittings with synthetic enamel white paint with two coats over a ready mixed priming coat, both of approved quality for new work :				
10.5.1	18.38.3	25 mm diameter pipe	metre	10.00	30.25	303.00
10.5.2	18.38.5	40 mm dia nominal bore	metre	40.00	42.65	1706.00
10.6	18.46	Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work) :				
10.6.1	18.46.3	25 mm nominal bore	each	2.00	439.25	879.00
10.6.1.1	18.46.5	40 mm nominal bore	each	2.00	631.30	1263.00
10.7		Providing and fixing Bib Cock of approved quality and make as per the direction of Engineer-in-charge				
10.7.1	MR	ARI-39041 2-Way Bib Cock with Wall Flange of Jaquar ,Cat. No- F360005 Bib Cock 2 in 1 with Wall Flange or Hindware,T3208C 2 in 1 Bib Cock with wall Flange or Johnson or equivalent	each	2.00	1946.80	3894.00
10.8		Providing and fixing Angle Valve of approved quality and make as per the direction of Engineer-in-charge				
10.8.1	MR	ARI-39053 Angle Valve with Wall Flange of Jaquar,Cat. No-: F360006 Angular Stop Cock or Hindware,T3410C Angle Cock with wall Flange or Johnson or equivalent	each	2.00	1199.40	2399.00
10.9		Providing and fixing Hand Shower (Health Faucet) of approved quality and make as per the direction of Engineer-in-charge				
10.9.1	MR	ALD-579 Hand Shower (Health Faucet) with 8mm Dia, 1 Meter Long Flexible Tube & Wall Hook of Jaquar	each	2.00	1380.02	2760.00
10.10	MR	Providing and fixing Stainless Steel Jalli of approved quality and make as per the direction of Engineer-in-charge	each	4.00	142.30	569.00
11		SH:- 11 ALUMINIUM WORK				



11.1	21.1	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) :				
11.1.1	21.1.1	For fixed portion				
11.1.1.1	21.1.1.2	Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	11000.00	530.90	5839900.00
11.1.2	21.1.2	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots/rollers and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately)				
11.1.2.1	21.1.2.2	Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	2000.00	634.45	1268900.00
11.2	21.3	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge. (Cost of aluminium snap beading shall be paid in basic item):				
11.2.1	21.3.2	With float glass panes of 5 mm thickness (weight not less than 12.50 kg/sqm)	sqm	550.00	1505.25	827888.00
11.3	21.8	Filling the gap in between aluminium frame & adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete.				
11.3.1	21.8.1	Upto 5mm depth and 5 mm width	metre	10000.00	96.75	967500.00
11.4	21.13	Providing and fixing Brass 100mm mortice latch and lock with 6 levers without pair of handles (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete.	each	60.00	528.85	31731.00
11.5	MR	Providing a pair of movable aluminium louvers section with one of the section having lever for making up-down movement, for fixing glass flats of approved design/pattern (to be paid separately) to the existing aluminium frame with CP brass/ stainless screws all complete as per the requirement and direction of Engineer-in-charge (Length of each louvers shall be measured separately for payment).	metre	3.00	341.99	1026.00
12		SH:- 12 WATER PROOFING				

12.1	22.5	Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying : a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/ sqm. This layer will be allowed to air cure for 4 hours. b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.	sqm	20.00	617.05	12341.00
13		SH:- 13 NEW TECHNOLOGIES AND MATERIALS				
13.1	26.86	Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid door/window/ Ceosetory windows & other Frames/Chowkhat comprising of virgin PVC polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives (Maximum toxicity index of 12 for 100 gms) fabricated with miter joints after applying PVC solvent cement and screwed with full body threaded star headed SS screws having minimum frame density of 750 kg/cum, screw withdrawal strength of 2200 N (Face) & 1100 N (Edge), minimum compressive strength of 58 N/mm ² , modulus of elasticity 900 N/mm ² and resistance to spread of flame of Class A category with propetry of being termite/borer proof, water/moisture proof and fire retardant and fixed in position with M.S. hold fast/lugs/SS dash fasteners of required dia and length complete as per direction of Engineer-in-Charge. (M.S hold fast/lugs or SS dash fasteners shall be paid for separately).				
		Note:For WPC Solid ddo/windows frames,minus 5mm tolerance in dimension i.e. depth and width of profile shall be acceptable.Variation in profile dimensions on plus side shall be acceptable but no extra payment on this account shall be made.				
13.1.1	26.86.3	Frame size 50 x 100 mm	metre	10.40	947.70	9856.00

13.2	26.88	Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid decorative type flush door shutter of required size comprising of virgin polymer of K value 58-60 (Suspension Grade), Calcium carbonate and natural fibers (wood powder/rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/cum and screw withdrawal strength of 1800 N (Face) & 900 N (Edge), minimum compressive strength 50 N/mm ² , modulus of elasticity 850 N/mm ² and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant. WPC to be laminated with PVC foil of minimum 14 microns thick of approved design pated with hot melt adhesive on both faces of shutter and fixing with stainless steel butt hinges of required size with necessary full body threaded star headed counter sunk S.S screws, all as per direction of Engineer-in-Charge. (Note: stainless steel butt hinges and necessary S.S screws shall be paid separately).				
13.2.1	26.88.1	30mm thick	sqm	4.00	4764.20	19057.00
13.3	26.90	Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid plain white color board for backing of cup boards and bathroom/kitchen cabinets etc. of required size comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/cum and screw withdrawal strength of 1800 N (Face) & 900 N (Edge), minimum compressive strength 50 N/mm ² , modulus of elasticity 850 N/mm ² and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixing with stainless steel screws etc. all as per direction of Engineer-In- Charge. (Note: stainless steel screws shall be paid separately)				
13.3.1	26.90.1	6 mm thick	sqm	300.00	1099.35	329805.00
13.3.2	26.90.2	12 mm thick	sqm	200.00	1711.10	342220.00
		Miscellaneous work				2000000.00
		Total				21127427.00
		Add Cost Index @ 9% on DSR -2023 Items				15,23,634.00
		TOTAL				2,26,51,061.00

ASSISTANT ENGINEER-II
CPWD,ROURKELA

EXECUTIVE ENGINEER-SAMBALPUR
CPWD,SAMBALPUR

<p>भारत सरकार अधीक्षण अभियन्ता- सम्बलपुर का कार्यालय केंद्रीय लोक निर्माण विभाग प्लॉट सं- 5073/ 6150 (जे०बी० टाइल्स और सेनेटरी शोरूम), सरलाकानी चौक (सेंट जॉन स्कूल के सामने), डाकघर- धनकौड़ा, सम्बलपुर, ओडिशा पिन 768006- ई-मेल: sc-sambalpur@cpwd.gov.in</p>	 	<p>Government of India O/o The Superintending Engineer-Sambalpur Central Public Works Department Plot No.- 5073/ 6150 (C/o JB Tiles & Sanitary Showroom), At- Sarlakani Chowk (Opposite St. John School), P.O.- Dhankouda Sambalpur (Odisha) Pin-768 006 Website- https://cpwd.gov.in</p>
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पत्रांक: 23(306)/अ०अभि०-संबलपुर/2023/ 524- (हि.)

दिनांक: 30.11.2023

सेवा में,

बाई- हेंड/ ई- मेल द्वारा

रजिस्ट्रार,
राष्ट्रीय प्रौद्योगिकी संस्थान- राउरकेला,
राउरकेला (ओडिशा)- 769 008

विषय:- Forwarding of Preliminary Estimate for the work- Replacement of fixed aluminium glazed windows with factory made uPVC windows with SGU glass in the Golden Jubilee Building at NIT Rourkela, Odisha.- Reg.

सन्दर्भ: डीन (पी एंड डी), एन आई टी राउरकेला के द्वारा ई- मेल दिनांक 20.11.2023 ।

अनुमान सं०: 16/PE/SE-Sambalpur/CPWD/ 2023-24

1.0 उपरोक्त कार्य के संबंध में प्रारम्भिक अनुमान (Preliminary Estimate) दो प्रतियों में धनराशि रु. **1,20,92,000=00 (Rupees One Crore Twenty Lakh Ninety Two Thousand) only** हेतु आपको प्रशासनिक अनुमोदन एवं व्यय स्वीकृति (A/A & E/S) हेतु प्रेषित किया जाता है । अनुमान की आवश्यकता हिस्ट्रीशीट में स्पष्ट कर दी गयी है ।

2.0 आपसे अनुरोध है कि कार्य की स्वीकृति जारी करते समय लेखा शीर्ष का उल्लेख करते हुए प्रशासनिक अनुमोदन और व्यय स्वीकृत (A/A & E/S) जारी करने का कष्ट करें ।

यह अधीक्षण अभियन्ता- सम्बलपुर के अनुमोदन से जारी किया जाता है ।



संलग्न: उपरोक्तानुसार (दो प्रतियों में)

सहायक अभियन्ता (योजना),
कार्यालय अधीक्षण अभियन्ता- संबलपुर,
के०लो०नि०वि०, संबलपुर

प्रतिलिपि:

1. डीन (योजना और विकास), राष्ट्रीय प्रौद्योगिकी संस्थान- राउरकेला, राउरकेला (ओडिशा)- 769 008 को सूचनार्थ प्रेषित (ई- मेल द्वारा)
2. कार्यपालक अभियन्ता- राउरकेला, के०लो०नि०वि०, राउरकेला (ओडीशा) को आवश्यक कार्यवाही हेतु प्रेषित।
3. कार्यपालक अभियन्ता (विद्युत)- संबलपुर, के०लो०नि०वि०, संबलपुर (ओडीशा) को आवश्यक कार्यवाही हेतु प्रेषित।


सहायक अभियन्ता (योजना)

<p>भारत सरकार अधीक्षण अभियन्ता -सम्बलपुर का कार्यालय केंद्रीय लोक निर्माण विभाग प्लॉट सं- 5073/ 6150 (जे०बी० टाइल्स और सेनेटरी शोरूम), सरलाकानी चौक (सेंट जॉन स्कूल के सामने), डाकघर- धनकौड़ा, सम्बलपुर, ओडिशा पिन 768006- ई-मेल: se-sambalpur@cpwd.gov.in</p>	 	<p>Government of India O/o The Superintending Engineer-Sambalpur Central Public Works Department Plot No.- 5073/ 6150 (C/o JB Tiles & Sanitary Showroom), At- Sarlakani Chowk (Opposite St. John School), P.O.- Dhankouda Sambalpur (Odisha) Pin-768 006 Website- https://cpwd.gov.in</p>
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PRELIMINARY ESTIMATE

Name of Work : Replacement of fixed aluminum glazed windows with factory made uPVC windows with SGU glass in the Golden Jubilee Building at NIT Rourkela, Odisha.

Estimate No. : 16/PE/SE-Sambalpur/ CPWD/2023-24

PE Amount : Rs. 1,20,92,000=00 i/c Contingencies

Location : NIT Rourkela (Odisha)



TIME : Tendering Process:02 Months

Execution Period :04 Months

Total Time :06 Months

YEAR : 2023-24

Superintending Engineer- Sambalpur
CPWD, Sambalpur (Odisha)
(E- mail: se-sambalpur@cpwd.gov.in)

<p>भारत सरकार अधीक्षण अभियन्ता-सम्बलपुर का कार्यालय केंद्रीय लोक निर्माण विभाग प्लॉट सं- 5073/ 6150 (जे०बी० टाइल्स और सेनेटरी शोरूम), सरलाकानी चौक (सेंट जॉन स्कूल के सामने), डाकघर- धनकौड़ा, सम्बलपुर, ओडिशा पिन 768006- ई-मेल: se-sambalpur@cpwd.gov.in</p>	 	<p>Government of India O/o The Superintending Engineer-Sambalpur Central Public Works Department Plot No.- 5073/ 6150 (C/o JB Tiles & Sanitary Showroom), At- Sarlakani Chowk (Opposite St. John School), P.O.- Dhankouda Sambalpur (Odisha) Pin-768 006</p>
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STATE: ODISHA

BRANCH: B & R

DIVISION: EE-ROURKELA

Estimate No: 16/PE/SE-Sambalpur/CPWD/2023-24

Name of Works: Replacement of fixed aluminum glazed windows with factory made uPVC windows with SGU glass in the Golden Jubilee Building at NIT Rourkela, Odisha.

Major Head	Minor Head	Detailed Head
Deposit Work		

This Preliminary Estimate (PE) amounting to **Rs.1,20,92,000/-** i/c cost Index of Rourkela @ 6.54%, EPF and ESI charges @ 3.94% and Contingencies @ 3% has been prepared by Er. Shri Ram Sahu, Executive Engineer-Rourkela, CPWD, Rourkela and further processed in the Office of Superintending Engineer-Sambalpur, CPWD, Sambalpur (Odisha).

HISTORY REPORT

History:

This Preliminary Estimate amounting to **Rs. 1,20,92,000/-** Including Cost Index of Rourkela @ 6.54%, EPF and ESI charges @ 3.94% and Contingencies @ 3% has been framed to cover the probable cost of the work for obtaining the Administrative Approval and Expenditure Sanction of the competent Authority

This Preliminary estimate has been prepared on the basis of requisition, vide mail Date 20/11/2023 from the Dean (P &D), NIT, Rourkela, Odisha. It supersedes the PE amounting to Rs.1,17,97,682/- submitted vide letter number.23(306)/SE-Sambalpur/2023/327(H) dated.19.07.2023.

The following provisions have been taken in the estimate.

1. Dismantling of fixed aluminum glazed windows.
2. Providing and fixing factory-made uPVC windows with SGU glass.
3. Filling the gap in between uPVC frame & adjacent wall by providing weather silicon sealant.
4. Providing and fixing double scaffolding system (cup lock type) on the exterior side and maintaining it in a serviceable condition for the required duration and removing it thereafter for replacement of fixed aluminum glazed windows with factory made uPVC windows with SGU glass in the Golden Jubilee Building at NIT Rourkela.
5. Buy back of dismantled aluminum glassed windows.

Cost: Rs 1,20,92,000/-i/c Cost Index of Rourkela @ 6.54%, EPF and ESI charges @ 3.94% and Contingencies @ 3%

Rate: DSR-2023 enhanced with cost index and Market rate.

T & P: Will be arranged by the contractor.

Method : By contract after call of tender.

Land: Available.

Specifications: As per CPWD Specifications 2019 vol-I &II with up-to-date Correction slip and also as per Guidelines issued by KVS.

Time	: i) Planning, Designing and Tendering	: 02 Months
	ii) Execution	: 04 Months
	Total	: 06 Months

Note:

The following obligation to be followed by client department:

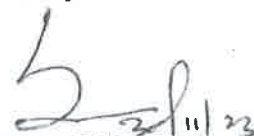
1. CPWD does not bind itself to complete the work within the estimated cost. Necessary revised estimate will be submitted when scope of work is increased/changed or there is deviation in quantities executed.
2. Any dispute arising out of the operation of the contract(s) for the subject work will be subject 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.
3. The CPWD has no funds of its own for investing in the work. The client department 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. If additional funds are required, the same will have to be provided by the client department on the Revised Estimates submitted by CPWD.
4. 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 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.

5. 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.
6. The PE includes the provision "In the event of delay in taking over completed Project or completed components of the Project independently as per phasing mutually agreed with client without awaiting the completion of the entire project, charges on security, re-finishing and re-commissioning, conservancy charges etc. is borne by the client".


30/11/23
Assistant Engineer-II
CPWD, Rourkela


Executive Engineer-Rourkela
CPWD, Rourkela


Assistant Engineer (P)
O/o Superintending Engineer- Sambalpur
CPWD, Sambalpur


SUPERINTENDING ENGINEER- SAMBALPUR
CPWD, SAMBALPUR

Name of work:- Replacement of fixed aluminum glazed windows with factory made uPVC windows with SGU glass in the Golden Jubilee Building at NIT Rourkela, Odisha

PRELIMINARY ESTIMATE

SL NO	DSR-2023	DESCRIPTION OF ITEMS	UNIT	QTY	RATE (Rs.)	AMOUNT (Rs.)
1	9.147A	Providing and fixing factory made uPVC glazed/wire mesh windows/doors comprising of lead free uPVC multi-chambered frame, sash and mullion/coupler (where ever required) extruded profiles having minimum wall thickness of 1.70 mm for Series R1 and R2 profiles and 2.10 mm for Series R3 and R4 profiles conforming to EN: 12608 in any shape, colour and design duly reinforced with galvanized mild steel section made of required shape & size as per CPWD Specification, uPVC extruded glazing beads, interlocks and Inline sash adaptor (where ever required) of appropriate dimension, EPDM gasket, hardware, SS 304 grade fasteners of minimum 8 mm dia with countersunk head, comprising of matching polyamide PA6 grade sleeve for fixing frame to finished wall as per IS 1367 : Part 1 to 14, plastic packers, plastic caps and necessary stainless steel screws etc. Profile of frame, sash & mullion (if required) shall be mitred cut and fusion welded/mechanically jointed duly sealed at all corners, including drilling of holes for fixing hardware and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod pf approved size and quality, all complete as per approved drawing conforming to CPWD specification & direction of Engineer-in-Charge. Section of steel reinforcement and cross sections of uPVC profiles to be as per design approved by Engineer-in-Charge. Wire mesh / Glazing of plain/ toughened/ laminated/ double glass unit with / without high performance coatings as per design requirements and conforming to IS: 3548 & IS:16231 shall be paid separately. Note:- Structural design proof checked from a Government Engineering Institute, to be provided by the manufacturer for: (i) Sites with basic wind speed > 45 m/sec as per IS 875 - Part 3 (ii) Sites with structure height more than 20m for all wind speeds.				
1.1	8.147.A1	Two track two panels sliding window with Aluminium channel for roller track, wool pile, nylon rollers with SS 304 body.				
1.1.1	9.147.A1.3	Using R4 series with frame (64mm & above) x (45mm & above) & sash (44mm & above) x (55mm & above) with zinc alloy (zamak) powder coated handle on every panel along with multi-point locking system (Height above 1.8m).	sqm	261.00	9628.60	2513065.00
1.2	9.147.A2	Two track four panels sliding windows with Aluminium channel for roller track, wool pile, zinc alloy (zamak) powder coated handle on three panels along with multi-point locking system, nylon rollers with SS 304 body.				
1.2.1	9.147.A2.2	Using R4 series with frame (64mm & above) x (45mm & above) & sash (44mm & above) x (55mm & above) (Height above 1.8m).	sqm	519.00	8579.55	4452786.00
2	14.72	Providing and fixing double scaffolding system (cup lock type) on the exterior side, up to seven story height made with 40 mm dia M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube chaffies, M.S. clamps and M.S. staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for the required duration as approved and removing it there after. The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of Engineer-in-charge. The elevational area of the scaffolding shall be measured for payment purpose. The payment will be made once irrespective of duration of scaffolding. Note: - This item to be used for maintenance work judicially, necessary deduction for scaffolding in the existing item to be done.	sqm	7095.00	338.25	23,99,883.75
3	15.13	Taking out doors, windows and clerestory window shutters (steel or wood) including stacking within 50 metres lead :				
3.1	15.13.1	Of area 3 sq. metres and below	Each	102.00	143.50	14,637.00
3.2	15.13.2	Of area beyond 3 sq. Metres	Each	110.00	188.90	20,779.00

4	21.3	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):				
4.1	21.3.2	With float glass panes of 5 mm thickness (weight not less than 12.50 kg/sqm)	sqm	661.00	1505.25	9,94,970.00
5	21.8	Filling the gap in between aluminium frame & adjacent RCC/ Brick/Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete.				
5.1	21.8.1	Upto 5mm depth and 5 mm width	metre	3280.00	96.75	3,17,340.00
6	MR	Buy back of dismantled Aluminium glazed windows as per the direction of Engineer-in-charge.	sqm	779.00	-315.00	-2,45,385.00
		TOTAL				1,04,68,075.75
		Add Cost Index @ 6.54% on DSR -2023 Items				6,84,612.00
		TOTAL				1,11,52,687.75
		Add EPF & ESI Charges @3.94 %				4,39,416.00
		Add Contingencies @ 3.00%(Minimum Rs. 5 lakh)				5,00,000.00
		Total				1,20,92,103.75
		Say				1,20,92,000.00

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30/11/23
Assistant Engineer-II
CPWD, Rourkela

[Signature]
Executive Engineer-Rourkela
CPWD, Rourkela

[Signature]
Assistant Engineer(P)
O/O SE- Sambalpur, CPWD, Sambalpur

[Signature]
30/11/23
SuperIntending Engineer-Sambalpur
CPWD, Sambalpur



EE Rourkela <eerourkelacpwd@gmail.com>

Status of the ongoing rectification work at NIT Rourkela Campus- reg.(Very Urgent)

2 messages

DEAN (PD) <dean-pd@nitrkl.ac.in>

Mon, Nov 20, 2023 at 2:06 PM

To: EE Rourkela <eerourkelacpwd@gmail.com>

Cc: "SE.Sambalpur.CPWD" <se-sambalpur@cpwd.gov.in>, Subrat Subhadarshi <subhadarshis@nitrkl.ac.in>, Joydip Mondal <mondalj@nitrkl.ac.in>, Bimalendu Mohanty <mohantybimalendu@nitrkl.ac.in>, HOD Estate Management <hod-em@nitrkl.ac.in>, "Prof. Umamaheshwar Rao" <director@nitrkl.ac.in>

Dear Sir,

Greetings!

At the beginning of September, we sent you a letter from our registry (No. NITR/RG/2023/L/0658 dated September 04, 2023) with a request related to the ongoing rectification work. Unfortunately, it has been two and a half months since then, but we have yet to hear back from you on this matter.

- (i) Submission of Preliminary Estimate for the work "Raising the floor height of the entire seminar block (GJB) to floor level at the entrance with waterproofing rework and elimination of the false ceiling of the seminar block (GJB) to achieve an adequate clearance height".
- (ii) Submission of Preliminary Estimate to rework the tile flooring in the Golden Jubilee Building according to the methodology outlined in the above mentioned letter.
- (iii) Submission of Preliminary Estimate for the work "Replacement of existing fixed glass aluminium windows of Golden Jubilee building with factory-made U-PVC windows with SGU glass of appropriate thickness as per structural design considering panel size and the wind speed.
- (iv) Submission of Preliminary Estimate for other minor works on the Golden Jubilee building as described in the above mentioned letter.
- (v) Immediate resumption of the execution of the work "Roof leakage solution with weathering Solar Reflective Index (SRI) Tiles for GJB terrace" in accordance with the methodology outlined in the above mentioned letter.
- (vi) Submission of Preliminary Estimate for other minor works on the Golden Jubilee building as described in the above mentioned letter.
- (vii) We have received a RCE for the work "Raising the basement floor height of the Electrical Science Building (ESB) to above the ground water table with waterproofing rework." of Rs. 5.01 Cr. via your letter No. 23(306)/ओ अभि०-संबलपुर/2022/507 dated 16.09.2022. We have sanctioned this work along with many other rectification works to CPWD. Although we have received PEs for all other rectification works (and most of these works are in progress right now) surprisingly we have not heard anything from you about the rectification of the Electrical Science Building (more than a year has passed!). Please submit the Preliminary Estimate for this work ASAP.

We understand that circumstances may have contributed to the delay, and we appreciate your attention to these important issues. Could you please provide an update or let us know if there are any additional details required to facilitate the process?

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E&M SERVICES PRELIMINARY ESTIMATE

Name of Work:-Special repair of the Golden Jubilee Building at NIT Rourkela

Sl. No.	Description of Item	Approx. Quantity	Unit	Rate	Amount	Remark
1	With wet riser and sprinkler system(PAR 1200/sqmt)					
	For Testing and commissioning @5% of PAR rate	32000	sqmt	60	1920000.00	PAR 23, 1.5.3
	Replacment of 1/3 defunct equipments	10667	Sqmt	1200	12800400.00	
2	Manual Fire Alarm System(For PA system, Signages)					
2.1	Supplying, installation, testing & commissioning of main control and indicating panel made out of 16 SWG MS sheet to accommodate the following items duly powder coated in approved colour with louvers for ventilation, locking arrangement, audio and visual indication for fire alarm and public address system, monitoring system including connections, interconnections etc complete as required, 10 Zone panel for fire alarm system 1500 Watt amplifier racks suitable for operation on 230V AC/24V DC supply conforming to IEC-268-3 complete with all accessories as required - 2 Nos.(one to act as standby) Talk back master station with LED PTT (press to talk) push button for operation on 230V AC/24 V DC supply conforming to IEC-268 for simplex mode of operation / communication suitable for 120 Nos talk back unit -1 set. Annoucement control desk suitable for selection of different zones selectively and ON ALL CALL switch with visual indication etc. complete as required -1 set. Amplifier change over switch for inter changing amplifier -1 No. Monitor panel for loudspeaker complete with output selector, ON / OFF switch, fuse, visual indications etc. complete as required - 1 No. Gooseneck microphone with stand and ON/OFF switch- 1 No. Main ON / OFF switch, fuse indication lamps, DC and AC voltmeters & ammeters, terminal blocks etc. complete as required - 1 set.	1	Each	411225.00	411225.00	DSR 2022(17.1.10) /MR
2.2	Supplying, installation, testing & commissioning talk back slavem station in surface/recess suitable for operation on simplex mode complete with P.T.T. knob & speaker/microphone enclosed in a M.S.(16 SWG)/ ABS box with break glass in front etc. complete as required.	80	Each	905	72400.00	DSR 2022(17.1.8)
2.3	Supplying, installation, testing & commissioning of 6 zone, voice alarm controller with USB, MP3 player (including 6 zone button paging station) with seamless integration facility with main fire alarm panel for voice evacuation complete as required.	1	Each	126411	126411.00	DSR 2022(17.3.1)
2.4	Supplying, installation, testing & commissioning of 1.5/3/6W ceiling speaker complete as required.	210	Each	965	202650.00	DSR 2022(17.3.2)
2.5	Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required.					DSR 2022(1.18.1)
	1 Pair	4500	Mtr	31	139500.00	
2.6	Supplying and drawing of cable Fire Retardant PVC insulated copper conductor cable in the existing surface / recessed steel conduit of following pairs, cores and size including connections and interconnections etc. as required.					DSR 2022(17.5.3.1)
	Speaker cable Single pair, 2-core, 1.5 sqmm	10500	Mtr	54	567000.00	

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ABC

Sl. No.	Description of Item	Approx. Quantity	Unit	Rate	Amount	Remark
2.7	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.					DSR 22(1.21.1)
	20 mm	12000	Mtr	128	1536000.00	
2.8	Emergency Light and illumination signages	32000	Sqmtr	22	704000.00	PAR 23, 6.28
3	Automatic Fire Alarm System(PAR 600/sqmtr)					PAR 23, 1.6.2
	For Testing and commissioning @5% of PAR rate	32000	Sqmtr	30	960000.00	
	Reaplace ment of 1/3 defunct equipments	10667	Sqmtr	600	6400200.00	
SPECIALISED E&M SERVICES						
4	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.					DSR 23
	Group C(For Repair and Replacement)	1000.00	Points	1845.00	1845000.00	1.3.3
	Wiring for light/ power plug with 2X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit along with 1 No 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.(For Repair and Replacement)	2500.00	Mtr	433.00	1082500.00	1.5
IEI FITTINGS						
5	Supplying, installation, testing and commissioning of 9Watt Sleek recessed Round LED Down Light, etc as required	291.00	Each	2024.00	588984.00	MR
6	Supplying, Installation, Testing and Commissioning of prewired, 12Watt Sleek recessed Round LED Down Light, etc as required	697.00	Each	2341.00	1631677.00	MR
7	Supplying, Installation, Testing and Commissioning of prewired, 15Watt Sleek recessed Round LED Down Light, etc as required	2963.00	Each	2467.00	7309721.00	MR
8	Supplying, Installation, Testing and Commissioning of prewired, 36 Watt 2ft X 2ft recessed square LED Light, etc as required	1222.00	Each	5694.00	6958068.00	MR
9	Supplying, Installation, Testing and Commissioning of prewired, 36 Watt aluminium extruded suspended profile LED Light, etc as required	129.00	Each	12232.00	1577928.00	MR
	Total				46833664.00	
	Add cost Index on PAR 2023 @ 6.54%				1490112.84	
	Say Rs.				48323777.00	

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B. K. Singh
AE (E)
NIT R, CPWD

(Signature)
Executive Engineer(EI)-Sambalpur
CPWD, Sambalpur

Annexure – A6

ESTIMATE							
NAME OF THE WORK:- RENOVATION OF L.A-1 (FALSE CEILING AND ACCOSTIC WORK)							
Sl.No	REF.NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	REMARK
1		<p style="text-align: center;"><u>Absorptive False Ceiling</u></p> <p>Supply and installation of Perforated aluminum clip-in tile (600mm × 600mm × 0.5mm thick) backed with 50mm thick 1000 GSM Polyester Wool to achieve NRC of 0.7</p> <p><u>Construction of Frame work</u> Framework shall consists of 3000mm long 'C' channels spaced at 1200mm center securely fixed to the structural soffit by support clamp & approved hangers. The last hanger at the end of each C channel should not be greater than 600mm from the adjacent wall. Use a C-channel connector for splicing two pieces of C-channels. 4000mm Main carriers (spring tee bars) shall be spaced at 600mm ceters in a direction Perpendicular to the C-channels and shall be secured at every intersection with C-channel using a suitable hanger. Use suitable connector to splice main carriers. Tiles should be clipped in between two carriers (spring tee bars) from below. Height of suspension from true ceiling is 350mm.</p> <p><u>Cavity Filling</u> Ceiling frame work shall be back lined by using polyster having a density of 1000 GSM 50mm thick</p> <p><u>Boarding</u> Clip-in with double pip self-levelling feature and special tabs two allow removal of tile to enable plenum access with plain visual consisting of 600 × 600 clip-in tiles of 0.5mm thick aluminum with bavel edge in global white colour pre-coated with preimer coat at the rear side with light reflectance> 60% and suitable for green building application, with recycled content of 50%. Tiles would have</p>	Sqm	1575	1850.00	2913750.00	Rate and qty are taken from M/s Sonic previously done in L.A ii
2		<p style="text-align: center;"><u>Reflective False Ceiling</u></p> <p>Supply and installation of 12.5mm thick tapered edge gypsum moisture resistant board</p> <p><u>Construction of Frame work</u> Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from MS sheets and galvanized with zinc coating of 120 gms/sqm (doth side inclusive) as per IS:277 and consisting of angle cleats of size 25mm wide x1.6mm thick with flanges of 27mm and 37mm, at 1200mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5mm dia x 150mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50mm of required length with nuts & bolts of required size and other end of of angle hanger fixed with intermediate GI channels 45x15x0.9mm A22 running at the spacing of 1200mm centre to centre, to which the ceiling section 0.5mm think bottom wedge of 80 mm with tapered flanges of 26mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.1. intermediate channel with connecting, clips made out of 2.64 mm dia x230 mm long G1. wire at every junction, including fixing perimeter channels 0.5 mm think 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling, fixed to wall/partition with the help of raw1 plugs at 450 mm centre, with 25 mm long dry wall screws @230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x25 mm at 230 mm c/c, including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound, jointing tapes, finishing with jointing compound in 3 layers</p>	Sqm	1655	891.40	1475267.00	Rate and qty are taken from M/s Sonic previously done in L.A ii

	covering upto 150 mm on both side of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawing						
3	<p style="text-align: center;">Upper wall</p> <p>Panel</p> <p>Supply and installation of Wood wool board 1200mm×60mm×25mm thick backed with 50mm thick 1000GSM Polyester Wool to achieve NRC of 0.80</p> <p>Construction of Frame work</p> <p>Frame work consist of Gypsum stud channel 48mm is first grouted to wal at 600mm centres, to achieve overall gap of 45mm from the wall.</p> <p>Cavity Filling</p> <p>Resultant air gap between wall and channel to be lined by using polyester fibre rolls of size 600mm width having a density of 1000GSM and 50mm thick.</p> <p>Boarding</p> <p>FR grade magnesite bonded square edge wood wool board having density not less than 400-450 Kg/m3 of size 1200×600×25mm thick manufactured by using superfine fibres having width of 1mm and meeting fire requirements as per EN 13501-1 A2,S1 d0 is than fixed on to metal channels by using rust protected metal fasteners of size 4.5mm Ø×50mm length. Each panel should receive minimum 6nos fasteners. Wood wool boards to be built jointed.</p> <p>Finishing</p> <p>Ensure board is in plumb level Screw heads to be covered with compound and sand the surface</p> <p>Edge Finishing</p> <p>The edge finishing around the wood wool board modules should be provided by using 12mm thick laminated plywood.</p> <p>Approved Brands-</p> <ol style="list-style-type: none"> 1. Wood wool Board - Jera Desogm/Anutone/Earcon/approved equivalent 2. Polyester wadding - Unique non woven/Acosonic/Prominent Insulations/approved equivalent 3. Metal frame work - Gypsteel/Demand/approved equivalent 4. BWP grade ply wood - Century/Anchor/Green ply 5. Laminate - Century/Green lam/approved equivalent <p>Note-</p>	Sqm	840	4500.00	3780000.00	Rate and qty are taken from M/s Sonic previously done in L.A. ii	

4	<p>Supply and installation of 13mm thick laminated plywood fixed on metal work backed with 50mm thick 1000GSM Polyester wool</p> <p><u>Construction of Frame work</u> Frame work consists of gypsum stud channel 48 mm is first grouted to wall at 600mm centres to achieve overall gap of 45mm from the wall.</p> <p><u>Cavity Filling</u> Resultant air gap between wall and channel to be lined by using polyester fiber rolls of size 600mm width having a density of 500GSM and 500mm thick.</p> <p><u>Boarding</u> 12mm thick FR Grade high density BWP grade plywood is them fixed to GI frame rigidly by using suitable fasteners and ensure proper level of the ply wood surface and fix 1mm thick laminate of approved shade on plywood.</p> <p><u>Approved Brands</u> 1. BWP grade plywood- Century/Anchor/Green Ply 2. Laminate- Century/Green Lam/approved equivalent 3. Metal frame work- Gyp steel/Diamond/approved equivalent 4. Polyester wadding- Unique non woven/Acosonic/Prominent Insulations/approved</p>	Sqm	572.00	4500.00	2574000.00
			Grand total		10743017.00