

MINUTES OF 34th BUILDING & WORKS COMMITTEE MEETING HELD ON 30th May 2024, 02.00 PM AT OOM Room (Hybrid mode), NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI.

PRESENT:

Dr G. Aghila
 Director
 NIT Tiruchirappalli

- Chairperson

Shri Anil Kumar
 Director (Finance) - F.I
 MoE, Govt. of India

- Member

3. Smt. Veena Dunga Under Secretary, (NIT-Division), MoE, Govt. of India - Member

4. Dr K. Baskar Dean (Planning & Development) NIT Tiruchirappalli - Member

5. Shri. Maruthanayagam Dhayalan Power grid corporation of India ltd Tamil Nadu - Member

6. Dr R. G. Robinson, Professor Department of Civil Engineering Indian Institute of Technology Madras Chennai – 600 036

- Member

7. Dr N. Thamaraiselvan Registrar i/c NIT, Tiruchirappalli

- Member Secretary

8. Dr S. Moorthi Chief of Works NIT Tiruchirappalli - Special Invitee

9. Dr Jeevan Joseph Associate Dean (Planning & Development)- Civil NIT Tiruchirappalli - Special Invitee

- 10. Dr D. Kannamma Special Invitee Associate Dean (Planning & Development) – Infra NIT Tiruchirappalli
- 11. Dr Karthik Thirumala Special Invitee Associate Dean (Planning & Development) - Electrical NIT Tiruchirappalli

The Chairperson welcomed the Members and the Special Invitees to the 34th Meeting of the Building and Works Committee and briefed the B&WC about the project updates since last B&WC Meeting. Thereafter, the Agenda items were taken up for discussion.

ITEM No. 1 CONFIRMATION OF THE MINUTES OF THE 33rd MEETING OF THE BUILDING and WORKS COMMITTEE HELD ON 09.02.2024

The Minutes of the 33rd Meeting of the Building & Works Committee (B&WC), NIT Tiruchirappalli held on 9th February 2024 were confirmed as circulated.

RESOLUTION	RESOLVED THAT The Minutes of the 33rd
34/B&WC/2024/1	Meeting of Building & Works Committee Be
	Confirmed.

ITEM No. 2 ACTION TAKEN REPORT ON THE MINUTES OF THE 33rd B&WC MEETING HELD ON 09.02.2024.

The details of Action Taken on the decision of the B&WC are given below: -

Resolution No.	Gist of the Decisions of 33 rd Meeting of the B &WC	Action Points / Action Taken
33/B&WC/2024/1	Confirmation of the Minutes of the 32 nd Meeting of B&WC	Confirmed.
33/B&WC/2024/2	Action Taken Report on the Previous Meeting of the B&WC.	Appropriate actions were taken
33/B&WC/2024/3	Approval of New work proposal	
	Item no: 3(i)- Renovation of 1st year Hostel Buildings (5 hostel blocks)	Submitted to FC & 75 th BoG
	3(ii)- Painting of Old Hostels (Six hostels proposed in Phase-I out of IV)	Submitted to FC & 75 th BoG
	3(iii)- Construction of Additional Toilet Blocks for Boys Hostel (Old Buildings: 6 Nos.)	Submitted to FC & 75 th BoG
	3(iv)- Construction of OHT (3 Lakh Litre) and Sump (5 Lakh Litre) for Opal Hostel	Submitted to FC & 75 th BoG

	3(v)- Construction of Mess & Gym for Amethyst hostel	Submitted to FC & 75 th BoG
	3(vi)- AMC contract for Estate Maintenance Department	Work in Progress
	3(viii)- Revised Administrative Approval for the Construction of New Kitchen for Opal Mess REF: Proposal (B&WC: 24)	Submitted to FC & 75 th BoG
33/B&WC/2024/4	Ratification and approval of the Works executed & undertaken by the Estate Department from 01.10.2023 to 31.01.2024	
	Progress report of various construction works entrusted to CPWD	1 0

RESOLUTION
34/B&WC/2024/2

RESOLVED THAT the action taken on the decisions of the 33rd Meeting of Building & Works Committee be noted.

ITEM No. 3 APPROVAL FOR NEW WORKS

i	Revised approval for the construction of STP on campus	Rs. 16.2 Crore
I.	accrised approval for the constituents of 511 off campus	183. 10.2 Clufe

In the 32nd B&WC (dated 25-10-2023) & 74th BoG (dated 03-01-2024), the proposal for the construction of a new 2-MLD STP was approved for an amount of Rs. 12.65 crores under OH-35. Further to this approval, a committee was constituted at the institute level with a NITT expert team along with members from the industry to ascertain the feasibility of the available technologies, considering the capital cost and running expenditure. In principle, it was decided to proceed with 1.0 MLD + 0.5 MLD (in total 1.5 MLD) in the Hostel zone and a separate 0.5 MLD STP in the Quarters zone with SBR technology. This recommendation leads to three separate STPs with capacities of 1.0 MLD + 0.5 MLD+0.5 MLD using SBR Technology that would be more effective from an operational point of view. On request, CPWD has submitted a revised Preliminary Estimate for the split STPs amounting to Rs. 16.2 crores vide Ltr No. 23(1)(12)/SE/Trichy/2024/985, Dt. 15/03/2024. Hence, the Building and Works Committee may accord approval for the revised cost estimate of Rs. 16.2 crore under OH-35 against the previously approved amount of Rs.12.65 crore under OH-35.

Resolution
34/B&WC/2024/3/i

The proposal was recommended by Building and Works Committee to FC & BoG for further approval, under OH-35 in a phased manner for the two Financial Years 2024-25 and 2025-26.

NIT Tiruchirappalli campus spreads over around 800 acres and offers 10 UG programmes, 31 PG and 17 Ph. D programmes as on 2024. In concurrence with National Education Policy 2020 (NEP), several new programmes (UG and PG) are being introduced and it's most likely to be introduced within the next couple of years. The student strength enhancement and introduction of new programmes necessitates additional infrastructure in the campus. However, as the infrastructure development in the campus has happened over different time frames, a proper functional planning is absolutely required to ensure efficient use of land and built space, Road networking, preservation of biodiversity, zero waste export, Energy harvesting etc., prior to proceeding with any new upcoming project. The preparation of the master plan can be materialised by performing detailed analysis of the existing infrastructure and the vacant available space for future expansion with the help of professional agencies. In this regard, a market survey was carried out for preparing the master plan in a phased manner which revealed a budgetary cost of 10 crore (or 1.25 lakhs / acre) for consultancy fee and 25 crore for detailed Master Plan preparation that includes elaborate reports with complex deliverables.

Considering the huge cost towards Master Plan preparation, it is proposed to execute in a phased manner. Various phases of the master plan may be as follows but not limited to

- 1. Topographical Land Survey
- 2. Mapping Existing Land Use
- 3. Built Space Open Space distribution
- 4. Circulation analysis (Vehicular and Pedestrian)
- 5. Efficient use of land
- 6. Efficient use of built space
- 7. RWH
- 8. Preservation of bio-diversity
- 9. Social Equity
- 10. Zero energy import
- 11. Zero waste export
- 12. Zero water import
- 13. Mobility without cars
- 14. Harvesting energy onsite
- 15. Energy rated campus.

Item Nos. 1-3 are considered as Phase-1.

Topographical Land survey: Topographic maps aid in planning and designing infrastructure projects on campus such as buildings, roads, bridges and other structures for the increasing number of users in the college campus. In addition to this, the map provides crucial information about the land's elevation and slope, ensuring necessary, safe and functional designs. CPWD is ready to provide their service in this

regard and submitted a preliminary estimate for an approximate cost Rs. 0.2615 Crore. For Item 2 & 3, consultants are to be engaged through a tender process. The total estimated budget for the Phase-1 activity is 1.00 crore. Hence, the Building and Works Committee may kindly consider and accord approval for the proposed work for an estimated cost of Rs. 1.0 crores under OH35 funds.

iii	Supply, installation, testing, and commissioning of a 13-passenger	Rs. 0.35 Crore
	lift in the OPAL-D hostel	RS. 0.35 Crore

The OPAL-D is a ground plus three (G+3) storey hostel building accommodating 326 girls. The existing 13-passenger lift of the OPAL-D hostel was installed by the CPWD in 2011 and handed over to the NITT. The lift is covered under an annual maintenance contract by a third-party agency. Since 2022, there have been frequent failures in the lift, and the students are afraid to use it. The following problems, such as lift door sticking, failure of ARD, bearing noise, and failure of hydraulics, are reported. Hence, considering the 13 years of service and repairs beyond economic justifications, erecting a new lift with a 13-passenger capacity for the OPAL-D hostel is proposed. CPWD submitted a rough cost estimate for an amount of Rs. 35 lakhs including 5 years of the AMC.

Hence, the Building and Works Committee may accord approval for the proposed 13-passenger lift at OPAL-D girls hostel with a cost estimate of Rs. 35 lakhs under OH-35.

Resolution 34/B&WC/2024/3/iii	The Building and Works Committee reviewed the proposal and
	recommended to FC and BoG for a cost of Rs. 0.35 crore under OH35 fund.

	Additional expenditure sanction for Supply, erection/installation,				
iv	testing, and commissioning of 1010kVA HT DG set with	Rs. 1.6355 Crore			
	synchronisation (Revised total budget of Rs. 3,58,55,000)				

An amount of Rs.1.95 Crore was approved under OH35 for the work entitled "supply, erection/installation, testing and commissioning of 1010 kVA HT DG" through 31st B&WC & 54th FC and 72nd BoG held on 22 June 2023 based on the rough cost estimate submitted by CPWD. The preliminary estimate submitted by the CPWD in March 2024 amounts to Rs. 3,58,55,000. The project cost is escalated by Rs. 1.6355 crores due to the revised cost of the 1010 kVA, 11 kV silent type DG. Hence, an amount of Rs. 1.6355 crore may be approved by B&WC and further recommended as an additional sanction to complete the above project with a revised total budget of Rs. 3.5855 crores under the OH35 fund.

Resolution
34/B&WC/2024/3/iv

The Building and Works Committee reviewed the proposal and recommended the project to FC and BoG for an additional cost of Rs. 1.6355 crore (Revised total budget of Rs. 3,58,55,000) under OH35 fund. However, it is recommended to ensure the quality of the DG in line with premium segment brands.

v	Construction of cable trench for electrical cables around	P 1 (0 C
	Production, Mechanical & MME Annex	Rs. 1.69 Crore

There are 4 underground LT cables running from the production substation to the production department (eastern side of the MME annexure site). Also, 8 underground LT cables are running from the Production substation to the CSG and Octagon building (western side of the MME annexure site). Currently, these twelve cables are excavated and lying over the surface temporarily. These cables are causing hindrance to the ongoing construction and developmental work around the building. There is a need to route these cables properly with safety. Furthermore, 10 more new LT cables will be laid in the same path around the annexure site.

Therefore, construction of a cable trench is proposed on the three sides of the MME annexure site with an approximate length of 350 m. This helps in organising and supporting cables for safe and reliable operation. Also, providing a cable trench makes it easier to identify and access specific cables when needed. The Building and Works Committee may kindly consider and accord approval for the project of Rs. 1.69 crores under OH-35.

Resolution 34/B&WC/2024/3/v	The Building and Works Committee reviewed the proposal and recommended to FC and BoG for a cost of Rs. 1.69 crore under OH35 fund.

vi Add 2019	itional expenditure sanction for "Providing AC for Barn Hall" -	Rs. 0.21 Crore
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The purchase and commissioning of Air Conditioners in the Barn Hall was recommended in the 18th B&WC & 36th FC and approved in 50th BoG held on 29 June 2018. An Administrative Approval and Expenditure Sanction of Rs. 64,06,699.00 was accorded to CPWD in 2019. However, the total expenditure after completing the work was Rs. 74,56,699.00. An additional expenditure of Rs. 10,50,000.0 (16.4% over and above the AA) is incurred during the execution of the work due to Supply and commissioning of two new electrical panels and additional UG cables for ACs at BARN Hall. Also, the false ceiling at BARN Hall was removed and re fixed during the execution.

The purchase and commissioning of Air Conditioners in the Architecture building was recommended in the 19th B&WC & 36th FC and approved in 50th BoG held on 29 June 2018. An administrative approval

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and expenditure sanction of Rs. 43,94,000 was accorded to CPWD in 2019. The total expenditure till October 2021 was Rs. 36,66,216. The balance fund of Rs. 7,27,784.00 is transferred by the CPWD to NITT and reflected in the Form 65 of November 2021. However, an additional work was executed by the CPWD for Rs. 8,00,000.0 (18.2% over the AA) after transferring the balance fund to NITT. An additional expenditure of Rs. 8,00,000.0 is incurred in the supply and commission of additional AC installations (5 x 2TR split units and 6 HP VRF AC on the 2nd floor) in the Architecture building.

The removal and recommission of Cassette ACs in the CSG building is executed by the CPWD for an amount of Rs. 2,50,000.00. The work includes the removal and recommissioning of cassette-type AC units from the ground floor to the first floor in the CSG building and installing additional copper piping & gas charging.

In total, an additional expenditure of Rs. 21,00,000.00 (Refer Annexure-A) is incurred jointly on the above-mentioned three air conditioning works. The Building and Works Committee may kindly consider and recommend the additional expenditure sanction of Rs. 0.21 crore to the FC and BoG to complete the payment towards the work and to take over the projects by the NITT at the earliest.

Resolution	The Building and Works Committee reviewed the proposal and
34/B&WC/2024/3/vi	recommended to FC and BoG for an additional sanction of Rs. 0.21 crore
	under OH35 fund.

ITEM No. 4. RATIFICATION ITEMS

Additional expenditure statement submitted for ratification

The Institute is engaging CPWD for developing major infrastructural projects (construction of major civil structures and electrical works) in the campus after becoming NIT. It was found that the actual expenditure was higher than the BoG approved expenditure for the projects, which were executed during 2012 to 2017, as stated below. Hence, the following items are brought to the B&WC for ratification. The works mentioned in Item No. 4(i) to 4(iv) are completed and handed over to NIT Tiruchirappalli. The CPWD settled the payments from the excess funds/savings available from other projects. There is no additional financial commitment for Item No. 4(i) to 4(iv) except the administrative approval towards audit compliance.

Hence, the following works may be ratified and recommended to FC & BoG.

UG Cable for Street lights and Service connections" - 2012 Rs. 0.25 Crore	i	Additional expenditure sanction for "Conversion of OH Lines into UG Cable for Street lights and Service connections" - 2012	Rs. 0.25 Crore
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The work was recommended in the 12th B&WC & 19th FC and approved in 32nd BoG held on 22 December 2012. An Administrative Approval and Expenditure Sanction of Rs. 2,46,88,011 was

accorded to CPWD in 2013. However, the total expenditure after completing the work was Rs. 2,71,72,738. An additional expenditure of Rs. 24,84,727.00 (10.06% over and above the AA) was incurred during the execution of the work due to the additional work that includes erection of 150 street lights (over & above the initial estimate of 500 street lights) and the necessary cabling (Refer Annexure-B).

Resolution 34/B&WC/2024/4/i	The Building and Works Committee approved the ratification request and recommended to FC and BoG for an additional cost of Rs. 0.25 crore
	towards audit compliance.

at NIT, Trichy" - 2013	i	Rs. 1.22 Crore
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The work was recommended in the 13th B&WC & 21st FC and approved in 34th BoG held on 3rd August 2013. An Administrative Approval and Expenditure Sanction of Rs. 2 crores was accorded to CPWD in 2013. However, the total expenditure after completing the work was Rs. 3,21,90,749. In total, an additional expenditure of Rs. 1,21,90,749 (60.9% over and above the AA) is incurred during the execution of the work due to the site requirements. Rs. 69,00,000 (Approx.) is additional expenditure due to the cost of synchronization panel, additional HT cable, earthing, and Rs. 52,90,749 (Approx.) is additional expenditure for the increased cost of two HT DG due to changes in the CPCB norms (Refer Annexure-C).

Resolution 34/B&WC/2024/4/ii	The Building and Works Committee approved the ratification request and recommended to FC and BoG for an additional cost of Rs. 1.22 crore
	towards audit compliance.

	Additional expenditure sanction for "Augmentation of LT	Rs. 0.29 Crore
	Electrical installation at various buildings" - 2014	As. 0.29 Citie

The work was ratified in the 17th B&WC & 31st FC and approved in 45th BoG held on 1st May 2017. An Administrative Approval and Expenditure Sanction of Rs. 1,73,07,143 was accorded to CPWD in 2017. However, the total expenditure after completing the work was Rs. 2,01,82,166. An additional expenditure of Rs. 28,75,025.0 (16.6% over and above the AA) is incurred during the execution of the work due to an increase in panel capacity and an increase in the number of outgoings in an LT panel (Refer Annexure-D).

Resolution	The Building and Works Committee approved the ratification request and
34/B&WC/2024/4/iii	recommended to FC and BoG for an additional cost of Rs. 0.29 crore
	towards audit compliance.

The work was recommended in the 13th B&WC & 21st FC and approved in 34th BoG held on 3rd August 2013. An administrative approval and expenditure sanction of Rs. 2.5 crores was accorded to CPWD in 2014. However, the total expenditure after completing the work was Rs. 4,76,84,145. An additional expenditure of Rs. 2,26,84,145 (90.7% over and above the AA) is incurred during the execution of the work due to the slight modifications in the work as per the site requirements. The additional work includes cabling, DWC pipe, and outdoor panels. Moreover, there were deviations in the wiring, fittings, ceiling fans, etc (Refer Annexure-E).

Resolution 34/B&WC/2024/4/iv

The Building and Works Committee reviewed the proposal and recommended to submit additional details in the forthcoming B&WC.

ITEM No. 5 REPORTING ITEM

(i) Third Party Quality Assurance-TPQA for ongoing Annex Building Construction

In order to monitor the progress and to ensure the quality of construction of the ongoing Annex building Project-1 (Production, MME and Mechanical Engineering) and Project-2 (Civil, ICE and EEE), TPQA agency was engaged through institute tendering procedures, complying with the prerequisite of having prior experience in offering similar service to project value at par with the ongoing projects. Accordingly, Centre for Urbanization, Building & Environment [CUBE], was assigned with the task of quality assurance of the ongoing works, vide

- 1. Work Order No. NITT/EMD/EE/WO/2023-24/26 dated 01.12.2023 (for Rs. 20,08,214/-) and
- 2. Work Order No. NITT/EMD/EE/WO/2023-24/27 dated 11.12.2023 (for Rs. 19,89,700/-)

As per the MoU between NITT and CPWD, the TPQA agency was appointed by NITT and referred to CPWD for making payments. However, at a later stage, it was brought to the notice of NITT that in the original Estimate of CPWD, there were no provisions made for TPQA work and hence, CPWD was unable to make payment (Ref: Minutes of meeting dated 05.03.2024). Further, it was discussed in detail and decided to make the payments by NITT. These projects are executed under HEFA and therefore, these TPQA payments shall also be made through HEFA. This is for the information of Buildings & Works Committee

(ii) Reporting of the works executed by the ESTATE MAINTENANCE DEPARTMENT from 01.02.2024 to 15.05.2024

The list of works (Completed & Paid, Completed, In Progress, and Approved) executed by the Estate Maintenance Department, NITT is given in Annexure-B of 34th B&WC Agenda and reported.

(iii) Progress Report of Various Construction Works Entrusted to CPWD

Vertical expansion of Lecture Hall complex:

The construction of vertical expansion of the LHC(LOGOS) building is completed and the regular classes are commenced in the building. The cycle parking works adjacent to the building are in progress.

506 seated Amethyst boy's hostel:

The Construction of 506 seated AMETHYST boys' hostels was completed and it was inaugurated by the Honourable Prime Minister. The student cycle parking & the compound wall for the hostel is under progress.

Annex building for the Production, MME & Mechanical department:

Production department: The floor slab casting is completed and the finishing activities are in progress.

MME & Mechanical department: The floor slab casting is completed and the finishing activities are in progress.

Annex building for the ICE, Civil & EEE department:

ICE department: The floor slab casting is completed and the finishing activities are in progress.

Civil department: The floor slab casting is completed and the finishing activities are in progress.

EEE department: The ground floor slab is under progress.

RESOLUTION	RESOLVED THAT the
34/B&WC/2024/5	(i) Works executed by the Estate Maintenance Department from
	01.02.2024 to 15.05.2024
	&
	(ii) Progress of various construction works entrusted to CPWD are noted.

The Meeting ended with vote of thanks by the Chairperson.

Member Secretary

M. Dul

Chairperson

34th Meeting minutes of B&WC held on 30.05.2024 in OOM Room, NIT Tiruchirappalli