



MINUTES OF 29th MEETING OF THE BUILDING & WORKS COMMITTEE HELD ON 17th June 2022 AT 02.30 PM THROUGH WEBEX(ONLINE), NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI.

PRESENT:

1. Dr. G.Aghila - Chairperson
Director,
NIT Tiruchirappalli
2. Shri. Anil Kumar - Member
Director (Finance)
Dept of Higher Education,
MoE, Govt.of India
3. Shri Soni -Member
Dept of Higher Education,
MoE, Govt.of India
4. Dr. M. Duraiselvam - Member
Dean (Planning & Development)
NIT Tiruchirappalli
5. Shri. Maruthanayagam Dhayalan - Member
Power grid corporation of India ltd
Tamil Nadu
6. Dr. R. G. Robinson, Professor, - Member
Department of Civil Engineering
Indian Institute of Technology Madras
Chennai – 600 036
7. Dr. G. Saravana Ilango - BoG Member
Department of EEE
NIT Tiruchirappalli

8. Dr. N. Thamaraiselvan - Member Secretary
Registrar i/c
NIT, Tiruchirappalli
9. Dr. M. P. Selvan - Special Invitee
Associate Dean (Planning and Development)
NIT Tiruchirappalli
10. Dr. R. Manjula - Special Invitee
Associate Dean (Planning and Development)
NIT Tiruchirappalli
11. Er. R. Narayanan - Special Invitee
Executive Engineer,
NIT Tiruchirappalli

The Chairperson welcomed the Members and Special Invitees to the 29th Meeting of the Building and Works Committee and briefed the B&WC about the observations since the last B&WC Meeting. Thereafter the Agenda items were taken up for discussion.

ITEM NO. 1. CONFIRMATION OF THE MINUTES OF THE TWENTY EIGHTH MEETING OF THE BUILDING & WORKS COMMITTEE HELD ON 26.04.2022.

The Minutes of the 28th Meeting of the Building & Works Committee (B&WC), NIT Tiruchirappalli held on 26th April 2022 were confirmed as circulated.

RESOLUTION 29/B&WC/2022/1 RESOLVED THAT the Minutes of the 28th Meeting of Building & Works Committee be Confirmed.

ITEM NO. 2. ACTION TAKEN REPORT ON THE MINUTES OF THE 28th B&WC MEETING HELD ON 26.04.2022.

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

Resolution No.	Gist of the Decisions of the 27 th Meeting of the B & WC	Action Points / Action Taken
28/B&WC/2020/1	Confirmation of the Minutes of the 27 th Meeting of B&WC	Confirmed. No action is required
28/B&WC/2020/2	Action Taken Report on the Previous Meeting of the B&WC.	Appropriate actions were taken
28/B&WC/2020/3	Approval of New work proposal Item no: 3 (i) Recarpeting of internal roads	The Item no:3(iii) is approved under Hostel fund.

	<p>(ii) Painting for Institute & Quarters zone</p> <p>(iii) Playground near Amber hostel</p> <p>(iv) C/o STP of capacity 2 MLD</p>	<p>The 50th FC suggested to re-submit the proposal along with detailed budget, source of fund and policy guidelines for approval item no:3 (i), (ii) & (iv) in next FC meeting. Hence, the item no: 3(i) , (ii) & (iv) is re-submitted in the 29th BWC with more details, source of fund and policy guidelines.</p>
28/B&WC/2020/4	Ratification and approval of the Works executed & undertaken by the Estate Department from 16/07/2021 to 31/03/2022.	Ratified and appropriate actions were taken
	Progress report of various construction works entrusted to CPWD	The progress of work carried out by CPWD was inspected by Monitoring committee fortnightly periodic report was submitted.

RESOLUTION
29/B&WC/2022/2

RESOLVED THAT the action taken on the decisions of the 28th Meeting of Building & Works Committee be noted.

ITEM NO 3. APPROVAL FOR NEW WORKS.

i	Internal & External Painting to institutional and Quarters Building in NIT Campus.	Rs.35.09 Cr
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a) Institute zone

The NITT campus extends to an area of 777 acre and there are about 34 buildings including 18 academic departments, department annex building and other service departments like CSG, Estate Office, etc,. The list of buildings are given below:

Sl.No	Description	Year of construction	Interior Painting area (sq.m)		Exterior Painting area (sq.m)	
			Available	Proposed	Available	Proposed
1	Admin building	1964	34180	22121	13672	8849
2	Library (old)	1964	9955	9955	4063	4063
3	Hospital (old)	1964	1688	1688	689	689
4	EEE Department	1964	10925	10925	4459	4459
5	Mechanical Engg.Department	1964	24793	24793	10120	10120
6	Civil Engineering Department	1964	12982	12982	5299	5299
7	Chemical Engineering Department	1967	13309	13309	5432	5432
8	Metallurgy Department	1967	3505	3505	1431	1431
9	Silver Jubilee Building	1989	18780	12180	5850	0
10	Computer Support Group & Net lab	1992	8170	8170	3335	3335
11	Production Engineering Department	1992	20988	20988	8566	8566
12	Powder Metallurgy Lab	1994	4236	4236	1729	1729
13	Ceesat Department	1995	12339	12339	5036	5036
14	Gymnasium & Swimming Pool	1995	15582	15582	6360	6360
15	ICE Department	1996	11592	11592	4731	4731
16	IT centre	1999	28297	28297	11550	11550
17	Swimming Pool	2002	3662	3662	1495	1495
18	Estate Maintenance Department	2004	808	808	330	330
19	CSG Annex	2005	11573	11573	4724	4724
20	Hospital (New)	2008	8992	8992	3670	3670
21	Lecture hall complex (UG)	2008	30708	30708	12534	12534
22	Security office	2009	195	195	80	80

23	Library (new)	2010	39683	39683	16197	16197
24	Architecture Department (new)	2010	14244	0	5814	0
25	BARN Hall	2013	8434	8434	3442	3442
26	PG Lecture Hall complex (ORION)	2014	46060	46060	18800	18800
27	Lyceum	2014	14210	14210	5800	5800
28	Science Block (OJHAS)	2014	61740	61740	25200	25200
29	MBA Department	2015	12348	12348	5040	5040
30	Indoor sports centre	2016	12466	12466	5088	5088
31	GJCC (Multipurpose convention hall)	2017	43733	0	17850	0
32	Training & Placement	2018	14181	0	5788	0
33	Chemical Engineering-Annex building	2019	8428	0	3440	0
34	Third i	2019	15386	0	6280	0
Total Painting area (sq.m)			5,78,170	4,63,540	2,33,893	1,84,048

In the recent past years, the internal painting was done only to 12,660 sq.m(details mentioned below) out of total internal painting area of approximately 5,78,170 sq.m. and external painting was done only to 5850 sq.m out of total exterior painting area of 2,33,893 sq.m

Internal painting carried out in the last 5 years for Institute zone:

- Academic office(2020) - 1850 sq.m
- Silver jubilee building(2019) - 6600 sq.m
- During NBA visit(2019)
 1. Production department - 2310 sq.m
 2. MME - 700 sq.m
 3. Civil department - 660 sq.m
 4. CEESAT department - 540 sq.m

External painting carried out in last 5 years for Institute zone:

- Silver jubilee building(2019) - 5850 sq.m

The other department buildings have not been painted for the past 10 years(except area mentioned above). Due to continuous rain and unexpected monsoon season, water seepage occurred in many locations causing fungus formation and it leads to health issues. At many places, the painting got peeled off.

As per CPWD maintenance manual, the internal painting has to be carried out once in 3 years and external paint has to be carried out once in 5 years. In order to bring the working environment sustainable and livable condition, it is essential to carry out painting of all buildings constructed before 2017.

Hence, it is proposed to scarp the existing Internal & external coating before applying anti-fungal (wherever required) paint and then the primer along with 2 coats of painting is proposed. The total number of buildings in Institute zone are 34 nos which includes academic departmental buildings, allied labs, service departments, etc,

At present, the proposal is to carry out internal painting to **4,63,540 sq.m** against total area of **5,78,170 sq.m** and external painting to **1,84,048 sq.m** against total area of **2,33,893 sq.m**. The building which were constructed after **2017** is not taken for painting at present. The proposed work is for removing the existing painting and applying the wall putty and also to attend the crack with the crack filler wherever required, then applying two coats of interior and exterior painting. The Institute zone painting will incur an expenditure amount of Rs.27 crores.

b) Quarters zone:

The staff quarters 373 nos were constructed in the year 1964. The Research scholars quarters-54 nos & QIP quarters-30 nos were constructed in 2002 & 2007 respectively. Again 156 nos of quarters were constructed in 2008. The total number of quarters at present is 613 nos and only 580 nos of quarters are in livable condition. Due to continuous rain and unexpected monsoon season, water seepage occurred in many locations causing fungus formation and it leads to health issues. At many places, the painting got peeled off. Hence, it is proposed to scarp the existing Internal & external coating before applying anti-fungal (wherever required) paint and then the primer along with 2 coats of painting is proposed.

As per CPWD manual, the internal painting for the quarters have to be done once in 2 years and the external painting has to be done once in 3 years. The Estate Maintenance department is attending only the internal painting during the occupation of the quarters and the external painting was not done during the past 5 years. The internal painting was carried out as per the following data:

Sl. No	Year	No. of quarters painted
1	2017	24 nos

2	2019	29 nos
3	2020	33 nos
4	2021	18 nos
5	2022	40 nos

The internal painting was done only in 144 quarters out of 580 quarters for the last 5 years inside the campus. At present, the HRA per annum paid by the Institute employees are Rs.6.2 Crores(Rs.51.7 lakhs per month). The HRA mentioned is exclusive of licensee fee paid from Research scholars, QIP category & students under Medical ground. As a preventive maintenance and also to bring the quarters to livable condition, the painting for both internal and external is required for the quarters. The Quarters zone painting will incur an expenditure amount of Rs.8 crores.

The Building works Committee reviewed the proposal for both Institute zone and Quarters zone. The committee informed to submit the proposal on priority basis and phased manner in the forthcoming BWC for further approval.

ii	Recarpeting of Internal road including patch work for pot holes and part Extension of Road in NIT campus.	Rs.8.09 Cr
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a.Institute zone

The existing road inside the campus is of two types(6m wide & 3m wide road). The length of road available in the campus is given below:

1. 6 m wide road:
 - a. Institute zone: 10 km (60,000 sq.m)
 - b. Quarters zone: 2 km (12,000 sq.m)
 - c. Hostel zone: 7 km (42,000 sq.m)
2. 3m wide road:
 - a. Quarters zone: 7 km (21,000 sq.m)
 - b. Hostel zone: 7 km (21,000 sq.m)

During the visit of President of India on 2014, the road between Guest house to Helipad(Near Hospital) and Guest house to Admin block(4 km) recarpeting was carried

out. Due to recent rain, heavy loaded vehicle movement along the main avenue road and age of the road, it got damaged in many places. At few locations, the students and staffs have fallen down during raining mainly due to potholes.

The Institute zone is having 6m wide road of length 10 km. The recarpeting for quarters road was carried out during the year 2000. It has been more than 20 years since the carpeting for roads are carried out inside the campus apart from main avenue roads as mentioned above. As per Central Public Works Department(CPWD) manual 2019, the carpeting for the road have to be done once in 5 years(copy enclosed). Hence, it is proposed for recarpeting of internal road inside the Institute zone. The fund for the work is requested from Revenue expenditure.

Sl. No	Location	Road- (6 m wide)	Road- (3 m wide)
1	Institute zone	10 km	--
2	Quarters zone	2 km	7 km
3	Hostel zone	7 km	7 km

b. Quarters zone

The quarters zone is having 6 m wide road for a length of 2 km and 3 m wide for a length of 7 km. The recarpeting for quarters road was done during the year of 2000. It has been more than 20 years since the carpeting for roads done inside the campus. As per Central Public Works Department(CPWD) manual 2019, the carpeting for the road can be done once in 5 years(copy enclosed). At present, many potholes occurred in the quarters road. Hence, it is proposed for recarpeting for the internal road inside the campus. The fund for the work is requested from Revenue expenditure. At present, the HRA per annum paid by the Institute employees are Rs.6.2 Crores(Rs.51.7 lakhs per month). The HRA mentioned is exclusive of licensee fee paid from Research scholars, QIP category & students under Medical ground. The Building works Committee may kindly consider the above project for the cost estimate of Rs.8.09 Crore for the proposed work and recommend to F.C.

c. Hostel zone

The Hostel zone is having 6m wide for a length of 7 km and 3 m wide road for a length of 7 km. The recarpeting for quarters road was done during the year 2000. It has been more than 20 years since the carpeting for roads done inside the campus. Due to recent rain, the road is damaged in many locations. The student movement is very difficult in such locations. The recarpeting for quarters road was carried out during the year of 2000. It has been more than 20 years since the carpeting for roads done inside the campus. Also, the road extension is required in some locations as mentioned in the below picture(blue colour). As per Central Public Works Department(CPWD) manual 2019, the carpeting for the road can be done once in 5 years(copy enclosed). Hence, it is proposed for recarpeting for the internal road inside the campus. The fund for this work can be meet out from Hostel fund. The Building works Committee may kindly consider the above project for the cost estimate of Rs.8.09 Crore for the proposed work and recommend to F.C.

The Building works Committee reviewed the proposal for Institute zone, Quarters zone and Hostel zone. The committee informed to submit the proposal on priority basis and phased manner in the forthcoming BWC for further approval.

iii	Demolishing of old quarters	Nil
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The old quarters were constructed in 1964 which is more than 50 years back and some of the quarters are not in livable condition. There are huge cracks due to settlement, tree uprooting, seepage etc.,. Such a quarters are occupied in a prime location of the quarters zone. By demolishing the old quarters which are not in livable condition, we are able to construct new quarters. The existing faculty and staff strength has increased by 50%, it is essential to meet the requirement for construction of quarters by demolishing the old quarters. The following 33 quarters are proposed for demolition.

DEMOLISHED CONDITION QUARTERS (33 Nos)

SL.NO	STREET NO	QUARTERS NO	AREA(Sq.m)	No of quarters	YEAR of CONSTRUCTION
1	10	9,10,11,12	95.91	4	1964
2	11	5,6,9,10	84.36	4	1964
3	12	9,10	84.36	2	1964
4	13	5	95.16	1	1964
5	18	15 to 18	31.87	4	1964
6	19	9 to 18	31.87	10	1964

2	Construction of Annex Building for Production Engineering Department	Rs. 19,85,57,000/-	1/3rd from IRG 2/3rd from HEFA
Total (Rs)		Rs.59,78,36,000/-	

The CPWD is in the process of finalizing the drawing from their end and they have submitted a revised preliminary estimate after adding the requests from NITT along with the current cost index as mentioned below:

Sl no	Name of work	AA & ES Amount
1	Construction of Laboratory Annex Building for Mechanical and Metallurgical and Materials Engineering Department	Rs.44,34,67,000/-
2	Construction of Annex Building for Production Engineering Department	Rs. 23,21,11,000/-
Total (Rs)		Rs.67,55,78,000/-

Hence, it is proposed to issue a Revised Preliminary estimate for a value of Rs. 67,55,78,000/- with the condition that "The CPWD can proceed with the tender process and after floating the tender, the lowest bid value should not exceed the AA & ES sanctioned already vide reference (1). i.e Rs.59,78,36,000/-. Being HEFA project, the final Expenditure Sanction value should not exceed the HEFA approved value. In case, if the L1 bidder exceeds the value of Rs. 59,78,36,000/-, CPWD has to communicate to NITT after opening the price bid. NITT will give additional Expenditure Sanction after getting due approval from the BoG, NITT. The BWC approved the proposal without any financial sanction and recommended to the FC.

vi	Revised Administrative Approval for the Annex building of EEE, Civil department.	Nil
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NITT have issued the Administrative Approval and Expenditure sanction for the Value of Rs. Rs.56,96,55,000/- as mentioned below: The approval for the EEE, Civil and ICE Mechanical Annex & MME was accorded in 37th, 38th & 50th BoG and recommendation by 13th & 14th BWC.

Sl no	Name of work	AA & ES Amount	Remarks
1	Construction of Additional expansion of Electrical & Electronics Engineering(EEE) department.	Rs. 19,19,59,000/-	1/3rd from IRG 2/3rd from HEFA
2	Construction of Additional expansion of Instrumentation and Control Engineering(ICE) department	Rs. 18,30,98,000/-	1/3rd from IRG 2/3rd from HEFA

7	DQ	1 to 8	42.26	8	1964
			Total Nos	33	

The Building works Committee reviewed the proposal for demolition of old quarters and informed to obtain a formal report from CPWD norms for demolition. The proposal is recommended to FC.

iv	Construction of 2MLD Sewage Treatment plant for NIT campus	Rs.12.65 Cr
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There are two sewage treatment plants of capacity 800kLD and 300 KLD running inside the campus on hostel zone and quarters zone respectively. Both the STP were constructed more than 7 years back when the student and faculty strength was approximately 4000 nos. At present, there are more than 10,000 students and 400 staff members with family. The existing STP capacity could not meet increased requirement. In addition, the location of 800 KLD is very near to residential area (VOC Nagar) and we are receiving frequent complaints from the residential area which is close the STP stating the location of STP by Tamilnadu Pollution control board. Hence, the usage of this TSP will be reduced in a phased manner. Also, the maintenance cost for 2 STP's requires double the manpower and hence it is proposed to establish one centralized STP of 2MLD capacity with advance technology like MBR(Membrane Technology). The 2 nos of STP maintenance cost itself requires Rs.36 lakhs per annum. By making it as a single STP, the annual maintenance cost will be reduced half an amount. The Building works Committee reviewed the proposal and informed the Institute to explore the possibility of availing the fund from the IRG/HEFA.

v	Revised Administrative Approval for the Annex building of Production engineering, Mechanical & MME building.	Nil
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NITT have issued the Administrative Approval and Expenditure sanction for the Value of Rs.59,78,36,000/- as mentioned below: The approval for the Mechanical Annex & MME was accorded in 37th, 38th & 50th BoG after recommendation by 13th & 14th BWC. The approval Production Engineering Annex building was accorded in 60th BoG after recommendation by 25th BWC.

Sl no	Name of work	AA & ES Amount	Remarks
1	Construction of Laboratory Annex Building for Mechanical and Metallurgical -and Materials Engineering Department	Rs. 39,92,79,000/-	1/3rd from IRG 2/3rd from HEFA

3	Construction of Laboratory Annex building for Civil Engineering Department	Rs. 19,45,98,000/-	1/3rd from IRG 2/3rd from HEFA
Total Amount (Rs)		Rs. 56,96,55,000/-	

The Structural detailed drawing for EEE & ICE departments are completed. The Civil Annex building Structural detail drawing is under progress. The CPWD have informed NITT that the same escalation of the cost will be incurred for the above-mentioned building. Hence, it is proposed that the revised Administrative approval may be accorded for the floating of the tender by CPWD. Being HEFA project, the final Expenditure Sanction value should not exceed the HEFA approved value. In case, if the L1 bidder exceeds the value of Rs. 56,96,55,000/-, CPWD has to communicate to NITT after opening the price bid. NITT will give additional Expenditure Sanction after getting due approval from the BoG, NITT The BWC approved the proposal without any financial sanction and recommended to the FC.

RESOLUTION **RESOLVED THAT Proposal for item no: (i) and 29/B&WC/2022/3 (ii) can be prioritized and in a phased manner the proposal may be placed in the forthcoming BWC. Item no: (iii), a report may be obtained from CPWD for demolition. Item no: (iv), the Ministry informed NITT to explore the possibility of the fund from HEFA/IRG. Item no: (v) and (vi), the Revised Administrative Approval for Annex buildings is approved without any additional expenditure sanction and it is recommended to Finance Committee.**

ITEM NO. 4 REPORTING ITEMS

i) REPORTING OF THE WORKS EXECUTED BY THE ESTATE

MAINTENANCE DEPARTMENT FROM 01.04.2022 TO 10.06.2022.

The list of works (Completed & Paid, Completed, In Progress and Approved) executed by EMD were noted, as given in Annexure-F of the Agenda.

ii) PROGRESS REPORT OF VARIOUS CONSTRUCTION WORKS ENTRUSTED TO CPWD

a) Construction of Girls Hostel (G+2) 125 Double Seated Rooms - OPAL F Block:

NITT have officially taken over the building along with the snag points which was given to CPWD. The snag points are being attended by CPWD

b) Vertical expansion of Girls hostel (Opal 'F' block – two floors)

NITT have officially taken over the building along with the snag points which was given to CPWD. The snag points are being attended by CPWD.

c) Vertical expansion of Lecture hall complex:

The Administrative approval for Vertical expansion of Lecture hall complex was entrusted to CPWD on Nov-2019. The actual work commenced on Jun-2020 with a scheduled completion of Jun-2021. The casting of floor slabs is under progress and except one slab, rest other is completed. The finishing activities like flooring, painting, electrical works are also under progress parallelly. A committee may be formed to meet the revised schedule and the committee will meet every week for review with CPWD to speed up the process to handover to NITT by mid of July 2022.

d) 506 seated Amethyst boys hostel:

The Administrative approval for 506 seated AMETHYST boys hostel was entrusted to CPWD on Jan-2021. The actual work commenced on Feb-2022 with a scheduled completion of Sep-2023. The foundation work of the hostel building is completed and the first work slab casting work is under progress. The EE, CPWD has promised to complete the entire work by the end of Sep-2023. A committee may be formed to meet the revised schedule and the committee will meet every month for review with CPWD to expedite the process.

Fortnight review meetings are held and CPWD has been informed to speed up the ongoing works.

**RESOLUTION
29/B&WC/2022/4**

(i) RESOLVED THAT the (i) works executed by the Estate Maintenance Department from 01.04.2022 to 10.06.2022.

(ii) Progress of various construction works entrusted to CPWD be noted. CPWD should speed up the construction of the Lecture Hall Complex.

The Meeting ended with vote of thanks by the Chair.

N. Dhand

Member Secretary

[Signature]
Chairperson

