



राष्ट्रीय प्रौद्योगिकी संस्थान, राउरकेला  
National Institute of Technology, Rourkela

**Minutes for the 20<sup>th</sup> Building & Works Committee, National Institute of Technology, Rourkela to be held at 9.30 AM on 13.12.2013 (Friday) in the Board Room of the Institute.**

**Members Present:**

- |   |     |           |
|---|-----|-----------|
| 1. Prof. Sunil Kr. Sarangi, Director<br>N.I.T., Rourkela.   | ... | Chairman, |
| 2. Shri S. K. Upadhyay,<br>Registrar, NIT, Rourkela   | ... | Secretary |
| 3. Prof. R. K. Rahoo,<br>Mechanical Engineering<br>Professor, NIT Rourkela                              | ... | Member    |
| 4. Prof. S. K. Sahu,<br>Dean(PD), Civil Engg., NIT., Rourkela.  | ... | Member    |
| 5. Shri Ajaya Kr. Nayak, DGM<br>Civil Engineering, Town Engineering Department,<br>SAIL, RSP, Rourkela. | ... | Member    |
| 6. Shri Vinod Kr Shrivastava, DGM<br>Refrigeration & Air Conditioning, RSP.,<br>SAIL, RSP, Rourkela     | ... | Member    |

**Members Absent:**

- |   |     |        |
|---|-----|--------|
| 7. Mrs. Amita Sharma, IAS<br>Addl. Secretary, Government of India<br>Dept. of Secondary & Higher Education,<br>Ministry of Human Resource Development,<br>Sashtri Bhavan, | ... | Member |
|---|-----|--------|

**Invitees Present:**

- |   |     |         |
|---|-----|---------|
| 8. Shri B.K. Pati<br>S.D.O, PWD, Rourkela                           | ... | Invitee |
| 9. Prof. A.K. Panda,<br>VP, Civil Engg., NIT Rourkela.              | ... | Invitee |
| 10. Prof. A. K. Sahoo<br>VP, Civil Engineering Dept., NIT Rourkela  | ... | Invitee |
| 11. Prof. Y. K. Sahu,<br>V.P., EE, NIT, Rourkela                    | ... | Invitee |
| 12. Mr. S. P. Mohaptra,<br>EE (Civil), Estate Office, NIT Rourkela. | ... | Invitee |
| 13. Prof. S. Mohanty<br>EE, NIT, Rourkela                           | ... | Invitee |
| 14. Prof. K. C. Biswal,<br>PIC, Civil Maint., NIT., Rourkela        | ... | Invitee |
| 15. Prof. Sarat Kr. Das<br>PIC, Civil Construction, NIT Rourkela    | ... | Invitee |

**Invitees Absent:**

- |  |     |         |
|--|-----|---------|
| 16. Prof. Chitti Babu<br>PIC ,Electrical Maint., NIT Rourkela. | ... | Invitee |
|--|-----|---------|

Leave of absence was approved for all members absent.

## A. GENERAL AND PROCEDURAL MATTERS.

**BWC:20(2013)-01: Welcome to the members by the Chairman.**

**BWC:20(2013)-02: Confirmation of the minutes of the 19<sup>th</sup> Meeting of the BWC held on 06.09.2013.**

The minutes of the 19<sup>th</sup> Meeting were sent to the members vide letter No.NITR/2013/BWC-19/954, Dt. 16.09.2013. No comments were received from the members.

*BWC confirmed the minutes of its 19<sup>th</sup> Meeting held on 06.09.2013.*

**BWC:20(2013)-03: To report on the action taken on the decisions made in the 19<sup>th</sup> Meeting of BWC held on 06.09.2013 and to discuss matters arising out of the minutes:**

The report on the action taken on the decisions made in the 19<sup>th</sup> Meeting of the BWC held on 06.09.2013 is presented for BWC's consideration.

*BWC noted the above. The approval of the BOG for deviation and extra item was discussed as given in the annexure.*

**[Annexure-A1, Page No. 22-26]**

## B. REVIEW OF ONGOING PROJECTS:

**BWC:20(2013)-04: Review of ongoing Civil Projects:**

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

*All the ongoing civil projects were reviewed. The Committee expressed satisfaction on the progress of the works considering the constraints.*

**[Annexure-A2, Page No. 27-30 ]**

**BWC:20(2013)-05: Review of ongoing Electrical Projects:**

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

*All the ongoing Electrical projects were reviewed. The Committee expressed satisfaction on the progress of the works considering the constraints*

**[Annexure-A3, Page No.31-34 ]**

## C. ADMINISTRATIVE PROPOSAL FOR NEW PROJECTS – PART-'A':

**BWC:20(2013)-06: PROPOSAL FOR NEW PROJECTS:**

### 1. Installation of one MW Capacity Solar Power Plant:

To meet the electricity need for the Institute and to carry out research on renewable energy sources in engineering scale, it is

proposed to build a “one MW grid connected solar PV power plant” on campus. This facility will be extendable to 2 MW and beyond. The plant requires physical space of nearly two hectare for the 1MW plant and proportionately more for higher sizes. Considering the shortage of space in our campus it is proposed to build this facility above the water way to the east of Puspa Lake or below the existing 400 kV transmission lines. Technical feasibility and related issues are to be examined. If both options are undesirable or otherwise inadmissible, prime land towards south-east corner of the campus can be used for the purpose.

In order to facilitate tendering work, preparation of specifications, BOQ, estimates etc is in progress.

It was proposed to invite Expression of Interest through advertisement in News papers and NIT website and get proposals from reputed companies engaged in the business of supplying solar PV power plants.

*The BWC approved the proposal.*

## **2. Proposal for building a Clean Room Complex for research on Biological Science, Biotechnology, Biomedical engineering, Electronics (VLSI) and similar research areas:**

The Institute requires several Clean Rooms for carrying out research in Biological Science, Biotechnology, Biomedical engineering, Electronics (VLSI) and similar research areas. It is proposed to build a clean room complex south of the Chemical Engineering Department and east of Biomedical Engineering building. Space is available for building a facility of foot print 20x25 meters in 4 floors plus basement. It is proposed to build the facility up to 1000 class and create (ISO-6) small 100 + class clean spaces in cabinets. There are specialized companies who build such facilities.

In order to facilitate tendering work, preparation of specification, BOQ, estimates etc. for the same is in progress.

It was proposed to invite Expression of Interest through advertisement in News paper and NIT website and get proposals from reputed companies in the line.

*The BWC approved the proposal.*

### **3. Installation of a large Biogas Plant:**

It is observed that huge quantity of food waste is being generated in our various hostels. It is necessary to utilize this waste material and convert into useful product. One of the methods is to install a Biogas Plant which is in line with pollution control measures. It will cost approximately Rs. 1.0 Crore. It is proposed to invite Expression of Interest through advertisement in News paper and NIT website and get proposals from reputed companies in the line of business.

*The BWC approved the proposal.*

### **4. Extension of Dining Hall Facility in South Block Guest House.**

During seminar and conferences which are frequently held in the Institute, it is observed that there is tremendous crowd and mix up of guests staying in the guest house, creating confusion and difficulty for the guests. In order to obviate this, it is proposed to provide a separate dining hall adjacent to the existing kitchen by dismantling the existing garage. A sketch showing the arrangement is enclosed. This will be cost about 1.0 Crore, (Built up area – 330sqm @ Rs. 30,000/sqm in 2 floors. The first floor space will be used for placement interviews.

*The BWC approved the proposal.*

**[Annexure-A4, Page No.35-36 ]**

### **5. Construction of New Guest House (West Block)**

It is observed that the number of guests presently coming to the Institute has increased to a large extent and will further increase in the coming years. Further, it is also observed that during National and international conferences and seminars which are frequently held in the Institute, there is over crowding of guests and participants who need accommodation for few days. Even many times, they do not find accommodation in the local Hotels also in Rourkela. As a result, they face tremendous hardships and when they go back, they carry a bad impression about the Institute facilities.

It is therefore, proposed to construct a four storied new Guest House (To be named as West Block) which will have 120 single

rooms, having facilities for dining, kitchen, discussion room etc.  
This will cost about Rs. 18.0 Crores.(120xRs 15 Lakhs per room).  
*The BWC approved the proposal.*

**6. Construction of One more Floor over the South wing of the Main Building.**

In order to cater to the additional space requirements for Materials and Metallurgical Engg. Department, it is necessary to construct one more floor over the south wing of the Main Building (sketch enclosed). It has been found that the same is structurally feasible. The design, specifications, BOQ and estimates are under preparation inhouse. It will cost about Rs.3.24Crores. (Built up area 1080 [sqm @Rs.30,000](#) per sqm).  
*The BWC approved the proposal.*

**[Annexure-A5, Page No. 37-38]**

**7. Construction of a Student Activity Centre (SAC) with provision of an Indoor stadium.**

Presently, the student strength has gone up to a great extent and will further increase in the coming years. Therefore, it is necessary to construct a new Student Activity Centre (a four storeyed construction), to be located on the south side of Visvesvarya Hall, the location of which will be close to most of the existing Hostels, including the new ones under construction and to be taken up for construction in the near future also. This will have provision for an indoor stadium. This will cost about Rs. 15.0 Crores.

*The BWC approved the proposal.*

**8. Construction of Community Hall along with a Department Store.**

In view of large increase in the student, staff and faculty population, it is necessary to construct a Community Hall in the campus to organize get togethers and other social functions. It is also necessary to construct a department store, nearby the Community Hall for the benefit of the people staying in this campus. This will cost about Rs. 2.0 Crores. (Built up area=800 sqm @ Rs. 25,000.00 per sqm.)

*The BWC advised Dean(PD) to put up a comprehensive proposal for renovation of Community Hall & Departmental Store with proper estimate & drawing in the next BWC Meeting.*

**9. Construction of a Building for School of Management.**

Presently, the school of management is functioning temporarily in the Biomedical Building. With increase in the student, staff and faculty strength, it is necessary to construct a separate new building for the School of Management which will be a befitting one for the department. This will be a four storeyed construction with a total built up area of 8,500 sqm. and will cost about Rs. 30.0 Crores.(i.e. 8500 x plinth area rate of Rs. 35,000.00/sqm).

*The BWC approved the proposal.*

**10. Construction of Academic Boundary Wall.**

Presently, some new academic buildings have been completed and are in operation. These include Bio Medical, Lecture Hall Complex-I, Electrical Science Buildings etc. There are some more buildings under construction which will be ready in the near future. These are: Lecture Hall Complex-II, Mechanical science Building. Further, some more new buildings are to yet be taken up in the near future. These include: Civil and Architecture Department, Under Graduate Laboratory & workshop, School of Management etc. For security reasons, it is necessary to construct a new boundary wall encompassing all the academic buildings. A sketch showing the new boundary wall is enclosed. Length of Boundary Wall will be about 1825m and will cost about Rs. 1.0 Crore.(At the rate of Rs.5,500/- per meter).

*The BWC approved the proposal.*

**[Annexure-A6, Page No.39-40 ]**

**11. Construction of First Floor over Kitchen area of Rengcol Canteen.**

Presently, two Canteens-Rengcol and Calorie Canteens are operating in the same building. While Rengcol canteen has

sufficient space, Calorie canteen does not have space for kitchen, toilet, washing facility, additional sitting space etc. It is now proposed to build the same for the Calorie canteen above the existing facility of Rengcol canteen. A sketch showing the above arrangement is enclosed. It will cost about Rs. 30 Lakhs. (Built up area=310 Sqm @ Rs. 25,000/sqm.).

*The BWC approved the proposal.*

**[Annexure-A7, Page No.41-43]**

## **12. Fresh Air ventilation system of Dining Halls of Vikram Sarabhai, GD**

### **Birla and Dhirubhai Ambani Hostels.**

At present, there is no fresh Air Ventilation system in the dining halls of Hostels. As such, the environment inside the dining halls becomes very hot and uncomfortable during dining hours. Hence, it is proposed to provide fresh air ventilation system to the dining halls of following hostels:

1. Vikram Sarabhai Hostel.
2. GD Birla Hoste and V.S. Hall of Residence.
3. Dhirubhai Ambani and Swaminathan Hall of Residence.

The estimated cost works out to about Rs. 100 Lakhs including sound proofing which will be done by an expert consultant.

*The BWC approved the proposal.*

## **D. APPROVAL OF BOQ AND ESTIMATE FOR TENDERING NEW PROJECT- [PART-'B']:**

### **BWC:20(2013)-07: PROPOSAL FOR APPROVAL OF BOQ AND ESTIMATE FOR TENDERING FOR NEW PROJECT :**

#### **1. Construction of Synthetic Turf for new Tennis Ground .**

It is proposed to construct a new Tennis ground with synthetic turf for our Institute. Earlier, the BWC had given administrative approval for the same.

Based on the advertisement in Newspapers and NIT website for expression of interest and subsequent presentation by the prospective firms, specifications, BOQ and estimate have been prepared. The details of the same are given in the Annexure.

The estimate amounts to Rs. 29.08 Lakhs (Copy enclosed).

*The BWC approved the proposal.*

**[Annexure-A8, Page No.44-47]**

## **2. Supply & Installation of Kitchen Equipments to Hostel & Guest House.**

Originally, the specifications, BOQ, drawings and estimates etc. were prepared by the Consultant, Mr. Ignatius John, Bangalore for supply & installation of kitchen equipments, both indigenous & imported items for CV Raman Hall, V.S.Hall, common dining for G.D. Birla-Visvesvarya and common dining for D Ambani-M. Swaminathan Hall. The estimate amounts to Rs. 3.60 Crore. The tenders were invited through advertisement in Newspapers and NIT website.

However, in response to the advertisement, offer from only one firm (i.e. M/s Kitchen Concepts, New Delhi) was received by due date.

The matter was discussed amongst members of the Tender Committee who felt that the poor response may be due to high value of the total work and correspondingly higher minimum eligibility criteria. Another factor possibly was due to inclusion of imported items, like dish washing machine, chapatti toaster etc (seven items). Therefore, it was decided to cancel the present tenders, and invite two separate tenders, as given below but excluding imported items:

No 1. Tender for supply and installation of Kitchen Equipment's (Indigenous) for Vikram Sarabhai & C.V Raman Hall of Residence.(Estimated Cost Rs.156 Lakhs.)

No 2. Tender for supply and installation of Kitchen Equipment's (Indigenous) for GD Birla-Visvesvarya Hall & D Ambani-M.Swaminathan Hall.(Estimated Cost Rs.166 Lakhs.). The details of the specifications, BOQ and estimates are given in the annexure. The tender was opened on 05.12.2013. Technical Comparative statement in progress. The tender for "Supply & Installation of **Imported** Kitchen equipments" will be invited after receipt of detailed specifications, BOQ and estimate from the Consultants, Mr. Ignatius John.

The BWC approved the proposal

**[Annexure-A9, Page No.48-98 ]**



### **3. Additional work related to Booster Pump House.**

Originally, it was envisaged to lay 2 pairs of HVAC pipes behind Mechanical Science Building. As advised by the Consultant, M/s Design Services, Kolkata, it is required to provide one more pair of pipes for supplying chilled water to Electrical Science Building and Golden Jubilee Building etc. for which additional trenches and support structures etc. are to be provided. Further, some road crossings are also to be done for which culverts are to be provided.

**Earlier, the BWC in its 19<sup>th</sup> meeting held on 06-09-2013 had accorded administrative approval.**

Now detailed specifications, BOQ and estimate etc. have been prepared in house. The estimate amount is Rs. 24.78 Lakhs. The details are given in the Annexure.

*The BWC approved the proposal.*

#### **E. APPROVAL OF TENDER FOR AWARD OF WORK [ PART-'C' ]:**

##### ***BWC:20(2013)-08:* REPORT ON AWARD OF WORKS TO CONTRACTORS**

#### **1. Site Development around AC Plant and Computer Science Building.**

Earlier The BWC in its 19<sup>th</sup> Meeting held on 06-09-2013 had accorded administrative approval of the proposal.

The specifications, drawings, BOQ and estimate for the above work have been prepared in-house. The estimate amounts to Rs. 34.11 Lakhs.

In response to the Tender for the above work, the following four firms have submitted their offers:

- M/s Rourkela Fabrication Works
- M/s Nanda Kishore Das
- M/s Sakuntala Enterprises
- M/s Estern Infrastructure Pvt. Ltd

The members of the Tender Committee found that the above firms are registered civil contractors of NIT and have done similar works in NIT. As such, the envelopes containing techno commercial bids and prequalification requirements were not opened.

Then the members of the Committee opened the envelopes containing the EMDs and found that they have submitted required amount towards EMD and cost of Tender Paper.

Then the price bids of the above mentioned firms were opened. It is observed that M/s Nanda Kishore Das have become L<sub>1</sub> at a price of (-) 14.69% below the estimated rates.

Considering the above, the Tender Committee recommended to award the work to M/s Nanda Kishore Das at a price of (-) 14.69% below the estimated value (i.e. Rs.34, 11,913.20).

*The BWC approved the proposal.*

## **2. Provision of Interlocking Tile in the parking Area between CS and Lecture Gallery & Area adjacent to AV Hall.**

Earlier The BWC in its 19<sup>th</sup> Meeting held on 06-09-2013 had accorded administrative approval of the proposal. The estimated cost amounts to Rs.15.0 Lakhs.

In response to the Tender for the above work, the following four firms have submitted their offers:

- Sri A.K.Mohanty
- M/s Rourkela Fabrication Works
- M/s Parbati Enterprise
- M/s Estern Infrastructure Pvt. Ltd

The members of Tender Committee found the above firms registered civil contractors of NIT and have done similar works in NIT. As such, the envelopes containing techno commercial bids containing prequalification requirements were not opened.

Then the members of the Committee opened the envelopes containing the EMDs and found that they have submitted required amount towards EMD.

Then the price bids of the above mentioned firms were opened. It is observed that M/s Rourkela Fabrication Works have become L<sub>1</sub> at a price of 8% above the estimated rates.

The members of the Committee called the representative of M/s Rourkela Fabrication Works and requested him to reduce his rates. After prolonged discussion, he agreed to reduce his quoted price to 5% above the estimated rates.

Considering the above, the Tender Committee recommended to award the work to M/s Rourkela Fabrication Works at a price of 5% above the estimated value (i.e. Rs.15, 74,922.09).

*The BWC approved the proposal.*

### **3. Provision of Ceramic Tile flooring for 'G' type Quarters.**

Earlier The BWC in its 19<sup>th</sup> Meeting held on 06-09-2013 had accorded administrative approval of the proposal. The estimated cost amounts to Rs.80.32 Lakhs.

In response to the Tender for the above work, the following six firms have submitted their offers:

- M/s A.K.Mohanty
- M/s Nanda Kishore Das
- M/s Sakuntala Enterprises
- M/s Estern Infrastructure Pvt. Ltd
- M/s Nirman Construction
- M/s Indian Projects Associates

Then techno commercial bids were opened. It was felt to prepare a Comparative statement (Technical) indicating their experience etc.

#### **Meeting on 26.11.2013**

The member of the committee went through the Comparative statement (Technical) indicating experience etc. of the above mentioned firms. The committee observed that M/s Nanda Kishore Das do not satisfy the eligibility criteria and hence found technically not qualified for the work. Other five firms as given below are found technically qualified for the work:

- M/s A.K.Mohanty
- M/s Sakuntala Enterprises
- M/s Eastern Infrastructure Pvt. Ltd
- M/s Nirman Construction
- M/s Indian Projects Associates

Then the members of the committee opened the price bids of the above mentioned qualified firms and found M/s Eastern Infrastructure Pvt. Ltd have become L<sub>1</sub> at a price of (-) 17.5% below the estimated price.

After discussion with the committee members, the agency has given an undertaking that they will execute the work within stipulated time, ensuring specification and quality of work.

Considering the above, the Tender Committee recommend to award the work to M/s Eastern Infrastructure Pvt. Ltd at a price of Rs.66,26,445.58 i.e. 17.5% below the estimated value (i.e. Rs.80,32,000.00).

*The BWC approved the proposal.*

#### **4. Construction New Dining Hall for KMS Hall.**

Earlier The BWC in its 19<sup>th</sup> Meeting held on 06-09-2013 had accorded administrative approval of the proposal.

The specifications, drawings, BOQ and estimate for the above work have been prepared by M/s Design Techno. The estimate amounts to Rs. 343.24 Lakhs.

Tenders have been invited through advertisement in News Paper and NIT website. The same will be opened on 05-12-2013.

*The BWC approved the proposal.*

#### **5. Appointment of Consultants for Assisting in Registration of Buildings under Major Projects (Phase-II) for GRIHA.**

Earlier The BWC in its 19<sup>th</sup> Meeting held on 06-09-2013 had accorded administrative approval of the proposal.

In response to the advertisement in Newspapers and NIT website, the following five firms have been pre-qualified for giving presentation about the works executed by them, and

also to produce original documents pertaining GRIHA/LEED registration for NIT's verification.

- M/s Green Tree Building (P) Ltd
- M/s Inertia
- M/s Lead Consultancy & Engineering Service (India) Pvt.Ltd
- M/s SGS India (P) Ltd
- M/s Godrej & Boyce Mpg. Co. Ltd

On 07.10.2013, the above mentioned firms gave their presentation separately in front of the committee members. Further, documents submitted by them were also verified with respect to originals or scanned copies.

Thereafter, quality marks were given out of maximum 100 for each of the firms. Details are given in the enclosure. Before opening of the price bids, the marks secured by them were announced.

Then price bids were opened for the above mentioned firms in the presence of their representatives.

It is observed that the above mentioned firms have included some additional terms and conditions in addition to quoted price in their offer.

All the above mentioned firms were informed that no other terms and conditions other than the quoted price are acceptable and they should withdraw the same from their offers. To this, the representatives of the firms agreed and recorded the same in their price bid offer. However, for only one firm i.e. M/s SGS India (P) Ltd, whose representative had left the meeting by that time was contacted over phone and he gave his consent to withdraw their terms and condition except the quoted price.

Then the marks secured for cost and total for quality and cost were evaluated for all the five firms. The details are given in the enclosure.

It is observed that M/s Green Tree Building (P) Ltd have become L1 at a price of Lump sum Rs. 12.5 Lakhs.

It is also observed that the price quoted by M/s Green Tree Building (P) Ltd is much on the lower side as compared to other firms. In view of this, the representative of the firm was

requested to give an undertaking confirming strict adherence to quality with the price quoted by them.

The members of committee recommend to award the work of Consultancy to M/s Green Tree Building (P) Ltd at a total price of Rs. 12.5 Lakhs.

*The BWC approved the proposal.*

**6. Review of progress of work of M/s Development Architects Pvt Ltd, Kolkata, entrusted for Major Projects(Phase-III)(Civil, Electrical& HVAC).**

The Work Order for the above work was placed on M/s DAPL vide Work Order No NITR/PW/WO/CT/48/13-14/50 dated 30-10-2013 and the agreement was yet to be signed. The scope of works includes the following:

- Master Plan of NIT
- Renovation of Academic Buildings
- Undergraduate Laboratory Complex
- Civil & Architecture Department
- 1600 Capacity Auditorium
- 500 Seated KMS Hall Extension
- Married Student Hostel
- Non-teaching 'E' Type Flat (3 storied), 2 Blocks

In the meantime, the Engineers and Architects of M/s DAPL came to Rourkela and collected necessary data for development of conceptual drawings, design. On 06.11.2013; they submitted conceptual drawings for the following buildings:

- 500 Seated KMS Hall Extensions.
- Undergraduate Laboratory Complex.
- E type Flats

After preliminary scrutiny of the drawings for the above buildings, it was observed that the quality of their drawing work and the architectural planning is of very poor quality. The rough schemes proposed were not only devoid of creative ideas but had serious errors. Among them are apparently very low FAR (Floor Area Ratio) in the proposed laboratory complex, toilet

facing rooms in KMS Hostel etc. The administration got worried and felt grossly insecure about handing over such a huge chunk of the Institute's future to a firm of questionable competence. Then, the list of technical manpower for Architecture & planning, submitted by M/s DAPL along with Techno-commercial bids was scrutinized. It is observed that they are having senior persons with specialization in Urban and regional planning but number of senior Architects with experience in architectural design is rather limited.

Considering the above, M/s DAPL were informed to give a presentation of the concept design of the buildings already done, as stated above, in-front of the internal committee members of NIT.

On 18-11-2013, a team of Engineers & Architects of M/s DAPL (Mr. D Mukherji, Ar P. Chakravarty, ArD.Kumer, ArS.Lai, Ar (Ms) S. Gupta) visited the institute. A meeting with institute personnel was arranged. At the outset, Director explained the institute's desire to get most of its buildings designed by a single firm, and its concern that the initial ideas coming from M/s DAPL do not inspire confidence. The DAPL team gave the presentation in front of the Committee members on the concept design/drawings for the following buildings:

- Undergraduate Laboratory
- KMS Hall Extension
- Civil & Architecture Department Building
- E Type Qtrs.

The salient features of the observations of the members of the committee are as follows:

**Undergraduate Laboratory:**

- The plan with respect to the land utilization is far from satisfactory (floor area to land area ratio is about 0.4 which is grossly unrealistic, and indicative of inadequate design experience)

- Facilities for movement of a large number of students inadequate.

**KMS Hall Extension:**

- Toilet planning is bad as located just opposite to living rooms.
- Room planning with respect to furniture placement is not satisfactory, considering lighting & ventilation.
- No provision for parking of bicycle
- Connectivity to the other blocks & dining poor.
- General planning not satisfactory.

**Civil & Architecture Department Building.**

- Structural Laboratory size is very small.
- No Hydraulic Laboratory included.
- No provision for faculty/Research students/M. Tech students/Technicians rooms in the Laboratories.
- No provision for parking.
- Floor area provided is inadequate with respect to requirements.
- General planning not satisfactory.

**E Type Qtrs.**

- Entry from rear while that for neighboring flats is from the front.
- No Parking facility.
- Staircase design not satisfactory.
- No lobby space in circulation area.
- No utility balcony.
- General planning with respect to the existing terrain not satisfactory.

The committee in general, observed that the architectural features and character of the buildings are not impressive and if adopted, will not dominate the skyline of NIT Campus which is desirable. The above observations were informed to the members of M/S DAPL after the presentation.



The members of the committee felt that there is an element of serious apprehension about the architectural capability of M/s DAPL in handling the total project work costing Rs. 300 Crore or higher. The committee also strongly felt that M/s DAPL is not able to meet the standard of high quality architectural concept for which they are selected. Now, since an element of doubt has cropped up, resulting in loss of confidence with M/s DAPL, further investigation in this matter is necessary.

Considering the above the members of the committee recommended the following:

(i) A small subcommittee of NIT officials may be constituted who will go to IIT, Patna, under construction to verify the quality of architectural drawings and performance of M/s DAPL who are presently working as Consulting Architects for their work. Further, in order to get a feedback report, the team also should visit NIT, Durgapur where M/s DAPL are working for the extension of a Hostel and renovation of Campus buildings,

(ii) Based on the above, appropriate action may be initiated.

The following team of faculty and engineers are deputed for NIT Durgapur and IIT Patna.

1. Prof S.K. Sahu ,Dean PD
2. Prof Sarat Kumar Das, CE
3. Prof R.K. Patel, Member BOG
4. Sri Himanshu Satpathy, Engg

The above team will give a report on:

1. The quality of buildings and innovation in layout & functionality.
2. The quality of Drawings.
3. Timely availability of Drawings.
4. Any other relevant item.

*The BWC had a detail discussion on the report of the committee. It was decided that M/s DAPL will be given only for KMS Hall of residence. For others building design competition will be done among the empanelled architects and those who have completed project in NIT with proven record. It was decided to give suitable incentive of amount Rs. 25,000/- + Air*

fare (Economic)+ Rail Fare for one person for preparation of conceptual drawing for each building as per requirements to be given by NIT. Dean (PD) was advised to do the needful. An expert committee consisting of senior faculty of Architecture departments of IIT, Kharagpur, BITS Mesra, NIT Nagpur members of BWC, Chief Planar of RDA and Senior faculty members of our Institute( depends on availabilities) will examine the concept before awarding architectural contract for each buildings. The contract will be only for Architectural services with no component of project management. Special emphasis will given for compatibilities with existing buildings in functionality and aesthetics.

**[Annexure-A10, Page No.99-106]**

**7. Upstream & Downstream protection measures for Causeway cum Over bridge at Road No-2 & 3.**

The construction of Causeways cum over bridge at road No- 2 & 3 at NIT, Rourkela is nearing completion. However, it is technically necessary to carry out some protection measures on the upstream and downstream of causeways cum over bridge at road No- 2 & 3. The protection measures include the following:

- Construction of downstream and upstream apron.
- Construction of brick wall and sand filling up to bottom of slab of causeway.

The scheme of protection measures, specifications, BOQ and estimates have been prepared in-house which are enclosed. The estimate amounts to cost Rs. 19.79 Lakh. (Details enclosed).

*The BWC approved the proposal.*

**[Annexure- A11, Page No.107-108]**

**F. DEVIATION AND EXTRA ITEMS FOR VARIOUS WORKS [PART-'D']:**

**BWC: 20(2013)-09: Proposal for approval of Deviation and extra items for various works:**

**1. Extra Item for Extension of CV Raman Hall of Residence (Agency: M/S P.D.Agarwal).**

The extra item statement for extension of CV Raman Hall is given in the Annexure. The work order for above work has been placed on M/s P.D.Agarwal vide work order No-

NITR/PW/WO(a)/CT/37/10-11/38, Dated 20.05.2010, and NITR/PW/WO(b)/CT/37/11/L/1179, Dated 22.02.2011 at a value of Rs. 20,34,98,878.00.

During the course of execution, it is decided to provide Vitrified floor tiles in common room, dining hall etc, which was not envisaged in the original scope of work. Hence, it has become extra item. The estimated cost of the same comes to Rs. 5.02 Lakh. (Total Quantity- 450.0 sqm, @Rs. 1117.56 per sqm) (i.e. 0.25% of the contract value) Details are given to the Annexure.

*The BWC approved the proposal..*

**[Annexure-A12, Page No.109-110]**

**BWC:20 (2013)-10: Any other item with the permission of the Chair.**

**Administrative approval of New Projects**

**1. Construction of Major Drain in the Areas of Proposed construction.**

It is observed that during rainy season, huge amount of water from Kantajhar village side discharge into the areas of proposed construction works, resulting in flooding of the areas. It is therefore proposed to streamline the runoff by construction of suitable size trapezoidal earthen drain, preferably underneath the HT Line which is passing in the area. An approximate estimate has been prepared and that amounts to about Rs 40.0 Lakhs (Size of drain assumed 5m bottom, 10m top, length about-1.7 KM). A sketch showing the proposed drain is enclosed.

*The BWC approved the proposal.*

**[Annexure-A13, Page No. 111]**

**Proposal for new Projects**

**2. Construction of New Roads & Widening of the Existing Roads (Phase IV).**

In order to have better connectivity to academic as well as residential areas, it is necessary to take up construction of some new roads and widening of some of the existing roads. The details of the roads to be taken up and the estimate are

given in the Annexure. The estimate amounts to Rs.700.0 Lakhs. It was proposed to invite tenders from reputed firms, having experience in road construction through advertisement in News paper and NIT website.

*The BWC approved the proposal.*

**[Annexure-A14, Page No 112-114]**

**3. Deviation of 33 KV Ring Main and 33 KV/0.433 KV substation in NIT.**

The details of 33 KV Ring Main and 33 KV/0.433 KV substation in NIT, Rourkela are enclosed in the Annexure. In view of space contracts (not known at the time of original estimate) it was necessary to build a 700m long concrete cable trench in place of having simple buried cables. It was also necessary to provide additional boundary walls and improved designs in several substations. The original order value was Rs.6,96,00000.00 and the proposed deviation the amended value of the Project was Rs. 7,39,58,938.00 amounts to additional expenses of Rs. 1,16,33,599.00 which is 15.7 % of the Amended value and 22.97 % of the original value. Because the deviation work is integrally linked to the laying of HT and LT cables and to the construction of substations, it was not possible to put up a separate tender for the items.

*The BWC discussed the Proposal in detail. Dean(PD) was advised that the detail drawing for deviation with justification should be enclosed. The deviation proposal should be put up in the appropriate form with the approval by the Director, which will be put up to BOG in the next meeting..*

**[Annexure-A15, Page No. 115 ]**

**4. Deviation for 33 KV Direct Line from Chhend OPTCL to NIT, Rourkela.**

The details of 33 KV Direct Line from Chhend OPTCL to NIT, Rourkela are enclosed in the Annexure. Because of obstruction by the local residents on the path of the proposed 33 KV-OH Line and non-availability of proper right of way, it was necessary to re-route the line covering 20 additional poles and commensurate length of conductors. The amended value of the projects was Rs.4,62,77,612.00. These amounts

to additional expenses of Rs.73,94,277.00 which is 15.9 % of the Amended value and 71% of the original value.

*The BWC discussed the Proposal in detail. Dean(PD) was advised that the detail drawing for deviation with justification should be enclosed. The deviation proposal should be put up in the appropriate form with approval by the Director, which will be put up to BOG in the next meeting.*

**[Annexure-A16, Page No. 116]**

*The meeting ended with thanks to the Chair.*

**(S. K. Upadhyay)**  
Registrar & Secretary  
Building & Works Committee



**(S. K. Sarangi)**  
Director & Chairman  
Building & Works Committee