

**MINUTES OF THE 18<sup>th</sup> MEETING OF BWC HELD ON 16 April 2012**

The 18<sup>th</sup> Meeting of the BWC was held on 16<sup>th</sup> April 2012 at 1100 hours in the Conference Room of COEP. Following were present:-

1. Prof. A.D. Sahasrabudhe, Director, COEP & Chairman BWC.
2. Dr. B. N. Chaudhari, HOD, Electrical Engineering Department & Member BOG, Invitee.
3. Prof. Uday Athawankar, Professor, IIT Mumbai, Member.
4. Prof. B. G. Birajdar, Secretary, BWC.
8. Brig. K. S. Pathania (Retd), General Manager (Admin), Invitee.

Shri. Atul Kirloskar, Member BOG & BOG Representative on BWC, Shri. Salil Rnadvive, Architect, Mumbai, Member, Joint Director, Regional Office, DTE Pune and SE, PWD could not attend the meeting due to preoccupation.

Prof. A.D. Sahasrabudhe, Director COEP and Chairman BWC welcomed the members and the agenda items for the day were taken up for further discussion/decision.

**Item - 01**

**Confirmation of Minutes of 17<sup>th</sup> BWC Meeting held on 08<sup>th</sup> October 2011.**

The minutes of 17<sup>th</sup> BWC Meeting, held on 08<sup>th</sup> October were tabled for confirmation. The members reviewed the minutes which were earlier circulated to them.

**Resolution**

The minutes of 17<sup>th</sup> BWC Meeting were approved by the members.

**Item - 02**

**Conservation/Restoration of Main Heritage Building.**

During 17<sup>th</sup> BWC Meeting, M/S Abha Narain Lambah Associates (ANLA) had given a detailed presentation on Conservation/ Restoration of Main Heritage Building, including revised plans of usage and budget estimates. Conservation/Restoration work has been accomplished and Restored Main Heritage Building was inaugurated by Hon'ble Shri Shardchandra Pawar (Union Cabinet Minister, Agriculture and Food Processing Industries) on 24<sup>th</sup> March 2012. We would like to place it on record that Heritage Committee of PMC had approved the

Restoration/Renovation Work on 24<sup>th</sup> April 2011 and inauguration took place exactly after one year on 24<sup>th</sup> April 2012.

The sec BWC also briefed the members on salient aspects of Conservation/Restoration of main heritage building, since M/S ANLA could not attend the subject meeting due to unavoidable circumstance. He informed that all major items have been executed in a satisfactory manner and finishing touches are being given. After the conference the members visited the renovated building.

#### Resolution

The members appreciated the Conservation/Restoration Work.

#### Item - 03

##### Progress Report on Construction of Girls' Hostel Building (GHB).

CCBA and M/S Creations gave a detailed presentation on the subject, salient aspect of their briefing are as under:-

(a) Part-1 RCC work, brick work, internal plaster and Kota Stone flooring has been completed. Waterproofing and plumbing works have been completed and toilets/bathrooms tiling has been completed. Railing to staircase, fixing of aluminium windows, door shutters, bathroom fittings, internal electrification, final coat of internal paint, fixing of RCC Fins, external stone-crate plaster, finishing of form finished concrete work, electrical cabling for Elevators, Furniture work, rectifications, cleaning and housekeeping is in progress.

(b) Part-2. RCC work, Brick work, internal plaster and Kota Stone flooring has been completed. Waterproofing and plumbing works have been completed and toilets/bathrooms tiling has been completed. Fixing of aluminium windows, door shutters, bathroom fittings, internal electrification, final coat of internal paint, fixing of RCC Fins, external stone-crate plaster, finishing of form finished concrete work, rectifications, cleaning and housekeeping is in progress.

(c) Part-3. RCC work and brick work has been completed. Internal plaster and waterproofing/plumbing has been completed. Kota Stone flooring completed. Kota Stone flooring and cladding at Ground Floor, Kota Stone Tread, Risers, Railing to staircase, fixing of aluminium windows, door shutters, bathroom fittings, internal electrification, final coat of internal paint, fixing of RCC Fins, external stone-crate plaster, finishing of form finished concrete work, rectifications, cleaning and housekeeping is in progress.

(d) Elevators

As intimated during 17<sup>th</sup> meeting of BWC that M/S Kone Elevators were awarded the contract through our Letter of Intent (LOI) No. COEP/BWC/GH-ACB/Elevators/2011/1161 dated 25<sup>th</sup> February 2011 for supply, installation, testing and commissioning of elevator (s) for Girls' Hostel Building (2 elevators) and Academic Complex Building (1 elevator) at a cost of Rs. 55,80,000/- and Rs. 18,20,000/- (including all taxes/octroi) respectively (total cost Rs.74,00,000/-). **Material has been received on site and erection of same will start soon.**

(e) **Furnishing of Rooms.** As intimated during 17<sup>th</sup> Meeting of the BWC that M/S Delta Infra Limited were awarded a contract for the supply, fabrication, placing it in position, installation and finishing of interior works for the Girls' Hostel Building at a cost of **Rs, 1,53,57,450/- (including all taxes/duties)**. However the progress was extremely slow and despite repeated reminders they could not execute the job and they requested for revised cost (Rs. 2,22,53,518) which was 45% more than the initial cost of the project. As such their contract was terminated on 17<sup>th</sup> January 2012

Consequent to the above, fresh tenders were invited and contract was awarded to M/S Interior Point at a cost of Rs. 1,63,47,279/- on 01 March 2012. Concurrence of the Chairman of Finance Committee was obtained prior to fresh tendering and issuance of the work order. The progress is satisfactory.

(f) **Solar Water Heating System.** Work Order for Solar Water Heating System for Girls' Hotel has been awarded to M/S Bipin Engineers Pvt. Ltd. vide our Work Order No.COEP/MED-MEDA/Hostel-SWHS/2011/7173 dated 25<sup>th</sup> November 2011 (L1) after tendering action and negotiations at a cost of Rs. 12,50,830/- The work is in progress.

(g) **Dining Tables.** Purchase order for supply and installation of dining table was placed on M/S Steel Fab (L1) at a cost of Rs. 5,28,000/- on 16<sup>th</sup> November 2011 (after tendering action and negotiations). The furniture is ready for installation.

(g) **Details of Expenditure Till Date** Accepted cost of the project is Rs. 14,30,70,490 and amount of bills passed for payment till date (RA Bill No 30 dated 31/03/2012) is Rs. 12,95,46,763,-.

(g) **Items Yet to be Tendered.** Action is in hand to tender the following items:-

- (i) Kitchen Equipment.
- (ii) Electrical Fittings.
- (iii) Water Pumps and Water Coolers.
- (iv) Power Supply.

(h) CCBA also brought to the notice of the members that by and large the quality of work so far executed by IVRCL was excellent however certain short comings had also

been observed (in both GH & ACB) and they were brought to the notice of the members.  
observed

## Resolution

The members took note of the progress

### Item -04

#### Progress Report on Construction of Academic Complex Building (ACB).

CCBA and M/S creations gave a detailed presentation on the subject.  
Following activities are in progress:

- (a) RCC work, brick work, internal plaster, Kota Stone flooring has been completed. Finishing to form-finished concrete work, finishing to retrofitted staircase-1 and 3, fixing of sanitary fittings, CP fittings, ventilation, partitions in toilet blocks at all floors, aluminium windows, door shutters, DGU partitions, false ceiling, internal painting, is in progress. Under ground water tank, external drainage work is in progress. Site development work is yet to be finalized.
- (b) Elevators. As mentioned above in Item- 3(d).
- (c) False Ceiling. Work pertaining to false ceiling at a cost of Rs. 900,000/- has been completed and the quality of work is satisfactory. Work Order for Metal False Ceiling in Toilet Blocks has also been issued after tendering action at a cost of Rs. 2,82,000/- excluding VAT @12.5% (to be paid extra on actual bill) and the work has commenced.
- (d) Details of Expenditure Till Date. Accepted cost of project is Rs. 6,54,52,920/- and amount of bills passed for payment till date (RA Bill No. 30 dated 31/03/2012) is Rs. 6,60,24,642/-.
- (e) Work is in progress in respect of following items which were tendered and contracts were awarded prior to 17<sup>th</sup> Meeting of BWC and were reported during the subject meeting.

Ser No	Name of Item	Final Negotiated Cost (Rs.)	Status
1	Audio Visual System for	53,00,000/-	95% Completed.

	<b>Auditorium, Seminar Hall &amp; Classrooms</b>		
2	<b>Acoustics &amp; Interior Works in Auditorium</b>	38,48,596/-	80% Completed.
3	<b>Providing &amp; Fixing Chairs in Auditorium</b>	11,52,000/-	Chairs received on site, and installation will be carried out after completion of final civil work.
4	<b>HVAC System for Auditorium &amp; Seminar Hall</b>	40,95,000/-	95% Completed.

(f) **Furniture in Academic Complex.** Work order for supply of material and making the furniture ( making charges 25% of the cost of material) for Faculty Cabins, Seminar Hall and Physics Laboratory was placed on M/S Delta Infra Limited at a cost of Rs.52,49,937/- (after tendering and negotiations) vide COEP Work Order No. COEP/BWC/Furniture /ACB/2011/7201 dated 28/11/2011 Basic carpentry work has been executed and finishing/polishing and cleaning is in progress.

(g) **Providing and Fixing Restroom Cubicle.** CCBA had recommended that restrooms of Academic Complex Building (32) and Girls' Hostel (2) should be fitted with ZMS SS Series Restroom Cubicles (to be procured from M/S Merino Industries Ltd). Consequently Purchase Order was placed on M/S Merino Industries Ltd. for 34 ZMS SS Series Restroom Cubicles (after negotiations) at a cost of Rs. 8,08,731/-. The material has been received and work on fixing them will commence after the completion of finished civil work.

(h) **Supply and Installation of Three Seated Benches for Class Rooms (265).** Purchase Order for procurement of benches was placed on M/S Steel Fab (L1) after negotiations at a cost of Rs.18,55,000/-. The furniture has been received.

(i) **Supply and Installation of Chemistry Laboratory Tables (16).** Work Order was placed on M/S Rushikesh Engineers (L1) at negotiated cost of Rs. 6,176,00. Tables have been made in situ.

(j) Only following items pertaining to the project are pending:-

- (i) Power Supply.
- (ii) Pumps and Water Coolers.

(k) CCBA also discussed the point pertaining to fitting of glasses in ground floor.

#### Resolution

The members resolved that in case the fitting of glasses was inescapable then they would be fitted. They also called IVRCL to explain the reasons for substandard work. IVRCL explained that, the shortcomings so observed will be rectified during final finishing touches and they also

ensured the house that all defects noticed /observed by CCBA will be rectified to the entire satisfaction of the user. They also requested to release the bills (amounting to Rs.100, 000,00/- which have been kept on hold) since they were finding it difficult to execute the work vigorously in absence of steady flow of cash. The members consented to release the outstanding dues.

#### Item – 05

#### **Bhau Institute of Innovation, Entrepreneurship and Leadership (BIEL).**

The construction work has not yet commenced, because the approval of High Court has not yet been obtained to remove/fell the tress from the construction site. All other statutory permissions from the PMC have recently been received and the case is being forwarded to the High Court to obtain permission to remove/fell the trees from the construction site.

#### **Resolution**

The members noted the progress.

#### Item – 06

#### **Providing and Fixing of Eco-friendly Paving Blocks.**

During 17<sup>th</sup> Meeting of the BWC the members had approved the selective use of Eco-friendly paving blocks at revised rates of Rs. 523/- per sq.m (up to 5000 sq.m) and the agency M/S C'cure have already executed the jobs assigned to them at revised rates.

Now it is proposed to provide the paving blocks in North Campus, approximately 32,000 sq.m. However, M/S C,cure have intimated that due to increase in Excise Duty from 10.3% to 12.36 and also steep rise in cost of cement from Rs.260/- to Rs. 340/- per bag the cost of paving blocks works out to Rs. 570/- per sq.m.

#### **Resolution**

The above proposal along with revised rates was approved by the members. However they cautioned that before laying paving blocks all underground cables/pipes should be carefully laid beforehand, because at a later stage it is difficult to remove them and relay, since they do not match with original pattern and look shabby. Members also suggested, that paving blocks with holes/perforated be laid on area which are exclusively used by the pedestrians, so that rain water is observed by the soil (rainwater harvesting).

#### Item-07

#### **Progress on Works Approved by the BWC and Contracts Awarded before 17<sup>th</sup> Meeting of BWC held on 08<sup>th</sup> October 2011.**

It was brought to the notice of the house that all works which were recorded under Item-08 of 17<sup>th</sup> Meeting of BWC had been completed.

#### **Resolution**

The members noted the progress.

### Item-08

#### **Progress of Works Approved During 17<sup>th</sup> Meeting of BWC.**

S. No	Name of Work	Estimated Cost (Rs)	Cost of Contract Rs.	Remarks
1	Installation of Ductable HVAC System for PG Computer Lab In Computer Department	6,27,911/-	4,13,204/-	Work Completed. Final bill certified for Rs.2,99,868.
2	Supply and Installation of 170 Computer chairs.	4,25,000/-	3,06,000/-	Chairs have been received, and certification of final bill is in progress.
3	Waterproofing of Basement and Drainage Line in Production Engineering Department	27,64,444/-	26,06,744	Work order has been issued and work is in progress.
4*	Renovation of Toilets, kitchen And colouring of Rectors' Quarters in Hostel	6,68,600/-	5,85,450/-	Work is in progress
5*	Painting Work in Computer, Instrumentation and E & TC	11,37,607/-	10,32,648/-	70% of Job has been accomplished.
6	Waterproofing of Existing Basement adjoining Drawing Hall of Mechanical Engineering Department and making two class rooms and a Computer Centre.	14,52,408/-	13,60,631/-	Work order issued and work is in progress.
7.	Minor Civil Works in Electrical Engineering Department.	3,67,896/-	3,38,189/-	Work completed. Final bill certified for Rs. 2,19,969/- (few items were deleted).
8	Providing and Laying RCC Pipes in Trenches for Cables In COEP Campus (North)	45,17,107/-	38,49,930/-	Work Order has been issued and work is in progress.

\* Contracts for works as mentioned at S.No. 4 & 5 were awarded after obtaining the sanction of the Chairman , BWC and tendering action, since they were required to be executed on priority being directly related to hygiene, sanitation and general cleanliness.

### **Resolution**

The members noted the progress.

### Item-09

Works as mentioned below were proposed for the consideration and approval of the members:

S. No	Name of Work	Estimated Cost (Rs)	Remarks
1	Renovation of Meeting Room and minor civil works in Civil Engineering Department	7,30,000/-	Wall paneling, Armstrong flooring, provision of aluminium sliding windows, provision of LCD and restoration/polishing of wooden staircase.
2	Waterproofing of roof of upper Drawing Hall of Civil Engineering Department.	4,50,000	During last rainy season it has been observed that roof has started leaking at number of places. As such immediate waterproofing is essential.
3	Construction of two substation one each at Academic Campus and Hostel Complex.	60,55,000/- (38,40,000 + 22,15,000)	Due to increase in consumption of electricity and future expansion plans, construction of permanent substations as per MSEDCL norms are most essential and are also required to be executed on priority.
4	Provision of Drainage System in North Campus.	29,80,000/-	Drainage system of North Campus is unsatisfactory and from hygiene and sanitation point of view its up-gradation is essential.
5	Provision of STP for North Campus.	40,00,000/- (Approximately)	At present available septic tank is nonfunctional and taking into consideration present and future requirements (4000 population) 1.5 MLD STP is proposed.

### **Resolution**

The members approved the above mentioned works in principle and gave following directions:-

- (a) Sanction of the PMC ((where applicable) must be obtained to obviate any complications at a later stage.
- (b) Tendering action for work at S. No.3 should be taken on priority.

### Item-10



**Retrofit of High Voltage Lab in Electrical Engineering Department and Mechanical Engineering Department ( the point was discussed in 17<sup>th</sup> Meeting of BWC and CCBA presented the details).**

(a) Retrofit of High Voltage Lab in Electrical Engineering Department. High Voltage Laboratory in the Electrical Engineering Department is to be retrofitted so as to allow maximum utilization of the existing volume of the building. The design will ensure that the existing equipment for the lab will be located such that their operation is not compromised. The total built up area that will thus be available for new uses will be approximately 7,500 square feet.

(b) Retrofit of Mechanical Engineering Department. Mechanical Engineering Department is housed in a historic stone building constructed over 100 years ago. With changes in technology and teaching curriculum the existing space in the building is being underutilized. Therefore, retrofitting is recommended to create additional working space to tide over the existing problem of shortage of accommodation and also to cater for future expansion as well.

The total built-up area that will thus be available for new uses will be approximately 25,000 square feet.

#### Item-11

##### **Construction of New Cafeteria (CCBA will present the details)**

The students have been demanding that a cafeteria of good quality along with toilet block be constructed in the campus, because, the present cafeteria and boat club canteen are not up to the desired standard. Their demand is genuine because they are not matching with other facilities which have recently been created in the campus. We consulted CCBA and they have already given the drawings. The built up area of cafeteria is about 5010 sq. ft. and toilet block is of 1220 sq.ft. The approximate estimate for both is Rs. 72 lakhs and Rs. 21 lakhs respectively. This point was discussed during earlier meetings as well. Considering the fact that cafeteria would also be required to be furnished, hence it is estimated that Rs.93 lakh would be required to construct a reasonably good cafeteria.

Budget estimates for above mentioned works were presented by CCBA.

#### **Resolution**

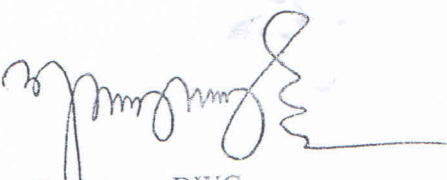
Members had already approved the above mentioned works including development of Riverfront in principles during previous meetings. However they gave the following directions to pursue the progress:-

- (a) Sanctions of the PMC if required due to increase in FSI or any other reasons should be obtained.

(b) CCBA should prepare the project reports in detail however in case they cannot devote quality time for smaller projects then some other architect be employed to undertake such jobs.

(c) All other statutory requirement must be complied with.

Meeting ended with thanks to all.



Secretary, BWC  
College of Engineering, Pune

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**GENERAL NOTES**

- ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LOCATIONS BEFORE COMMENCING WORK.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE SANS STANDARDS.
- THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL SERVICES AND UTILITIES AT ALL TIMES.
- ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE ENGINEER.
- PROTECT ALL EXISTING SERVICES AND STRUCTURES TO REMAIN.
- ALL NEW WORK SHALL BE DONE TO THE SATISFACTION OF THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS.
- ALL WORK SHALL BE COMPLETED WITHIN THE SPECIFIED TIME FRAME.
- THE CONTRACTOR SHALL MAINTAIN A CLEAN AND SAFE WORK SITE AT ALL TIMES.
- ALL MATERIALS SHALL BE STORED PROPERLY AND PROTECTED FROM WEATHER.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS.
- ALL WORK SHALL BE COMPLETED WITHIN THE SPECIFIED TIME FRAME.
- THE CONTRACTOR SHALL MAINTAIN A CLEAN AND SAFE WORK SITE AT ALL TIMES.
- ALL MATERIALS SHALL BE STORED PROPERLY AND PROTECTED FROM WEATHER.

NO.	REVISIONS	DATE	BY	FOR

NO.	REVISIONS	DATE	BY	FOR

NO.	REVISIONS	DATE	BY	FOR

**PROJECT:** COLLEGE OF ENGINEERING, PUNE

**CAMPUS:** COLLEGE OF ENGINEERING, PUNE

**PHASE:** CIVIL WORKS - IRRIGATION LAYOUT

**DATE:** 15/05/2018

**SCALE:** AS SHOWN

**DRAWN BY:** [Signature]

**CHECKED BY:** [Signature]

**APPROVED BY:** [Signature]

**DATE:** 15/05/2018

**PROJECT NO.:** [Number]

**DESIGN NO.:** [Number]

**CONTRACT NO.:** [Number]

**CLIENT:** [Name]

**LOCATION:** [Address]

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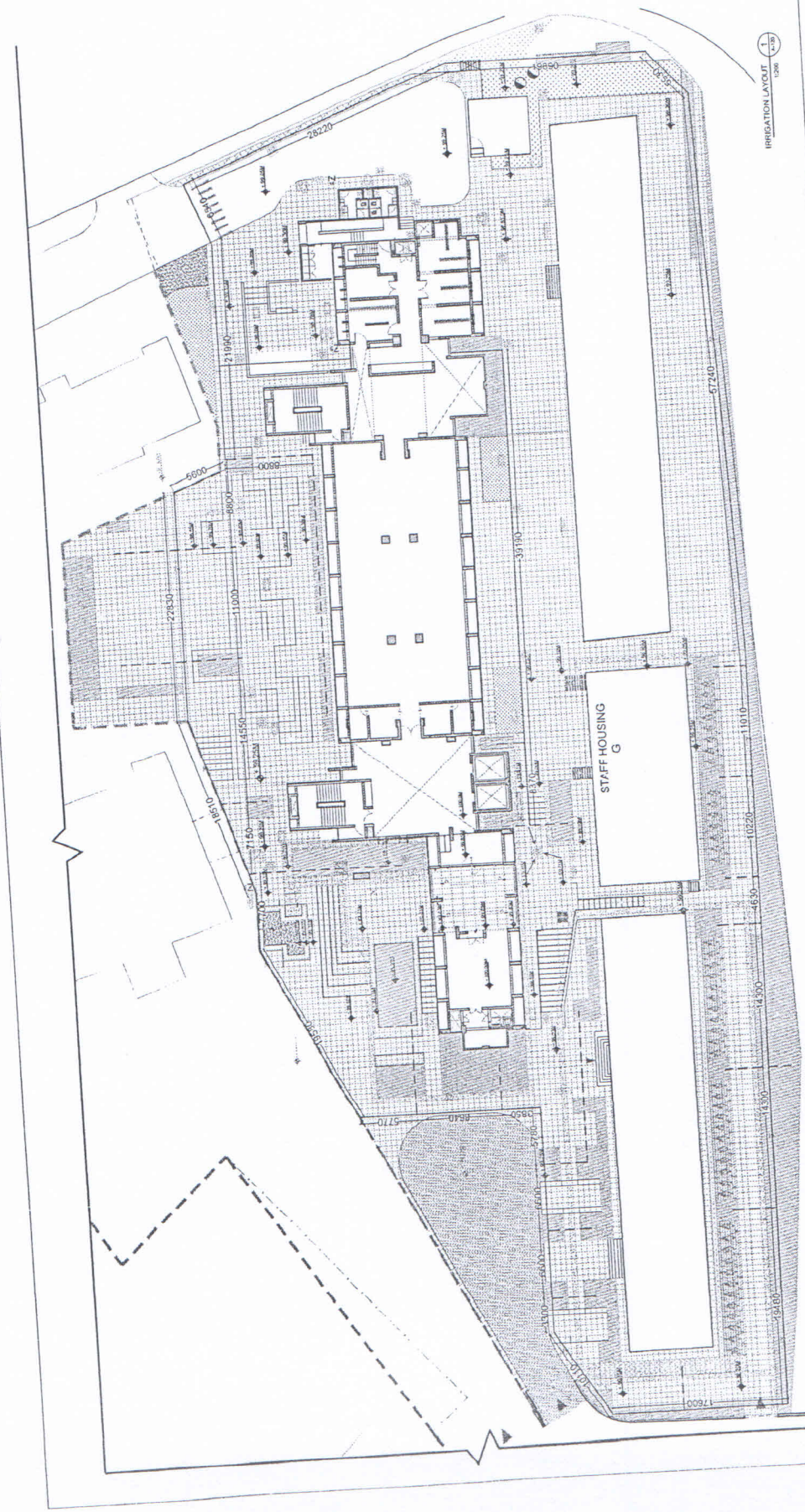
**PROJECT NO.:** [Number]

**DESIGN NO.:** [Number]

**CONTRACT NO.:** [Number]

**CLIENT:** [Name]

**LOCATION:** [Address]



IRRIGATION LAYOUT (1/200)

Specifications of 60 kW standalone SPV power plant

at  
Academic Complex Building (ACB), College of Engineering Pune

Power Plant Capacity: 60 KW

Area available on roof top of ACB = around 10000 sq.ft.

Array capacity – Not less than 100 kWp

SPV Panel Type – Mono Crystalline or Polycrystalline cells

Cell Efficiency minimum 16%

Open Circuit Voltage (DC) 36 Vdc

Short Circuit Current 8.15 Amp

Panel rating – above 200 Wp + 3%

Temperature Co-efficient -0.45%/°K

Module Efficiency minimum 14.4%

Weight 20 Kg

Front Cover High transmission > 91 %,

Tempered & Textured Glass not less than 3 mm Thick

Frame Material Anodized Aluminum Alloy

Cable 4 mm<sup>2</sup> ( separate cables for +Ve & -

Ve connection), MC 4 end connection, 1 m long.

s9 Junction Box IP65 Rated, 4 terminal JN Box with

3By-Pass Diodes

10 Output Terminal PV Connector

The SPV power plant must be provided with Lightning Arrester and over voltage protection.

Each array structure of the PV array must be grounded properly.

In addition to the lightning arrester, masts must also be provided inside the array field.

All cables are as per IS Standard and ratings

### Expected Performance:

Life of the SPV Panel >20 Years

Guaranteed output up to 10 years 90% Max.

Guaranteed output after 10 years & up to 25 years 80%

Instrumentation and Data recording and logging system should be provided at all the vital and measureable points of the plants. Parameters of measurement are as follows

Solar radiation intensity, diffuse as well as direct, ambient temperature, humidity, panel parameters, array parameters, storage battery, power conditioner etc. parameters

