150 YEARS OF CELEBRATING THE MAHATMA

सत्यमेव जयते

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एक कदम स्वच्छता की ओर



165 Architectural Footprints of CPWD (2nd Edition)

CPWD





Architectural Footprints of CPWD (2nd Edition)

September 2019

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ARCHITECTURAL FOOTPRINTS OF CPWD (2nd Edition)

हरदीप एस पुरी
HARDEEP S PURI



सत्यमेव जयते

आवासन और शहरी कार्य राज्य मंत्री (स्वतंत्र प्रभार)
नागर विमानन राज्य मंत्री (स्वतंत्र प्रभार)
वाणिज्य एवं उद्योग राज्य मंत्री
भारत सरकार
Minister of State (I/C), Housing & Urban Affairs
Minister of State (I/C), Civil Aviation
Minister of State, Commerce & Industry
Government of India

Message

I convey my congratulations and best wishes to the Central Public Works Department (CPWD) for publishing the second edition of the book "**Architectural Footprints of CPWD**".

The construction industry today is at an inflexion point. While, on the one hand, there is increased demand due to India's development prerogatives, on the other there is a need to balance growth with sustainability.

CPWD is today a market leader in leveraging technological advancement to construct sustainable and aesthetically pleasing buildings. As this publication highlights, CPWD's architects, engineers and horticulturists have shown that construction and climate action can go hand-in-hand.

My congratulations once again to CPWD for the second edition of this book and wish the organization success in its endeavours.

06 September 2019
New Delhi

(Hardeep S Puri)

Office:- Room No. 104-C, Nirman Bhawan, New Delhi-110011; Phone: 011-23061166, 23061162, 23062089 (Fax)

दुर्गा शंकर मिश्र
सचिव
Durga Shanker Mishra
Secretary

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आवासन और शहरी कार्य मंत्रालय
निर्माण भवन, नई दिल्ली–110011
Government of India
Ministry of Housing and Urban Affairs
Nirman Bhawan, New Delhi-110011



MESSAGE

It is very encouraging to know that CPWD is bringing out the second edition of the book "Architectural Footprints of CPWD" highlighting the state of the art buildings designed and constructed by CPWD across the country.

As an organization CPWD is constantly thriving in creation of sustainable built environment and the buildings designed by the Department are appreciated by various Ministries / Government Departments / Clients and others.

I wish all success to CPWD and call upon the team to work with full dedication to attain new heights.

(Durga Shanker Mishra)

New Delhi
06 September, 2019

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PRABHAKAR SINGH
Director General

सत्यमेव जयते

भारत सरकार
Government of India

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MESSAGE

I am happy to know, that the Architectural wing of CPWD is bringing out the 2nd edition of the book "**Architectural footprints of CPWD**" incorporating the latest buildings designed and constructed by CPWD.

In this edition, buildings that have been constructed with new and innovative Technologies have also been included.

I convey my deep appreciation for the Architects of the Department and wish them all the best.

(Prabhakar Singh)

Place: New Delhi
Dated: September 2019

NAVNEET KUMAR
Additional Director General (Works)

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सत्यमेव जयते

CPWD

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MESSAGE

"Architectural Footprints of CPWD", 2nd edition in another cap in the series depicting the presence of CPWD in it's pan India presence.

The footprints of CPWD is spread in all walks of human life ranging from the metro cities to the remotest corner of the country. This includes works of public utilities like construction projects, landscape, interior and art works.

As CPWD has entered in it's 165th year, this edition is an update of the previous edition with addition of new projects and data like new in-house project approvals and publications to give a glimpse of the varied function of the architectural works.

I express my deep gratitude to Shri Hardeep Singh Puri, Hon'ble Minister of Housing and Urban Affairs for releasing this book, Shri Durga Shanker Mishra, Secretary for his support and encouragement, Shri Prabhakar Singh, Director General, CPWD for his inspiration in bringing out this book.

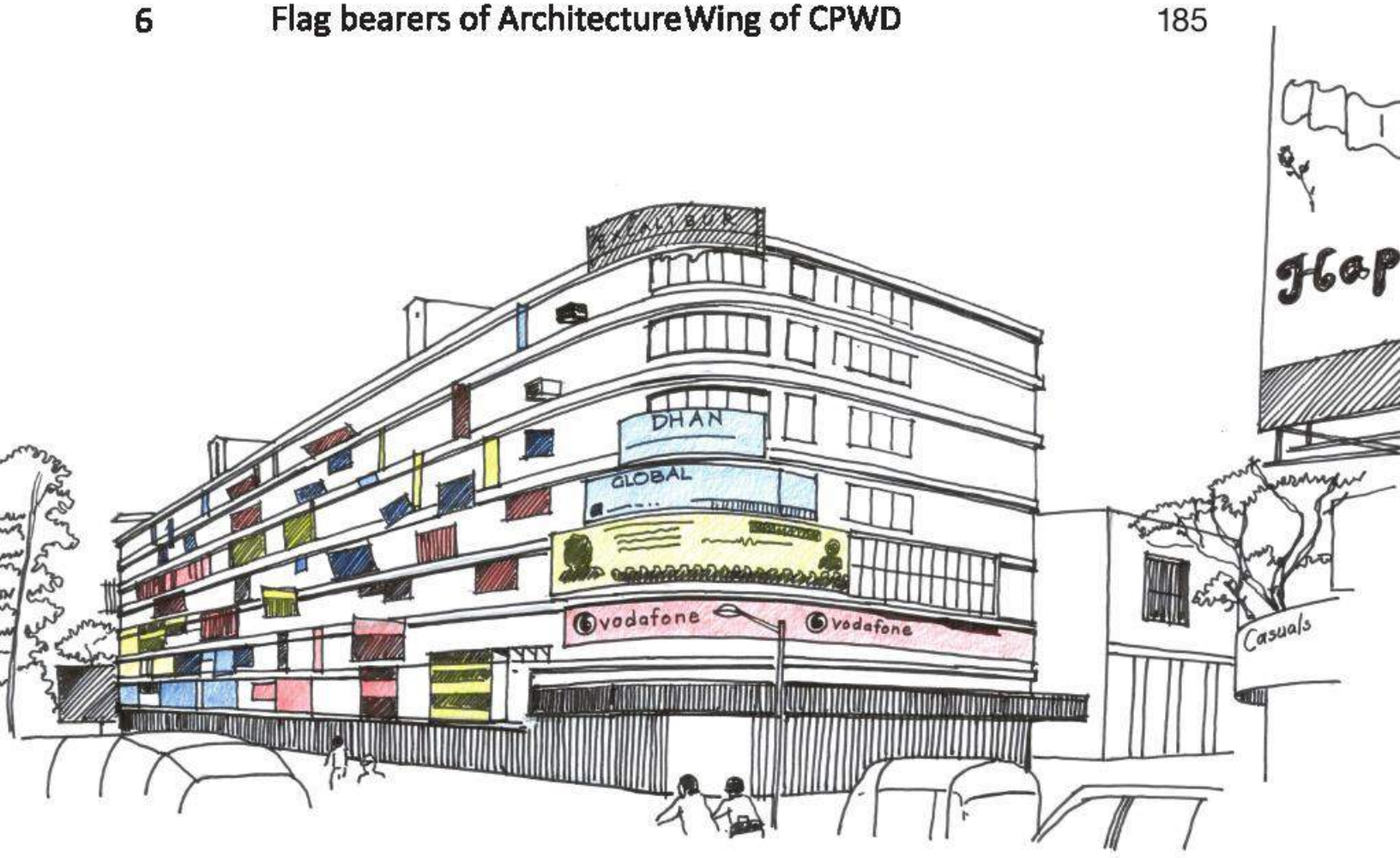
I also express my appreciation to the Senior Architect Sh. Abhishek Bose, Architect Sh. Rajesh Singh, Dy. Architect Sh. Yogendra Pal Singh Yadav and Asstt. Arch. Sh. Gaurav Sarswat, who have put in their hard work and sincere efforts to bring out this publication.

Last but not the least, special mention for M/s Clockwise Communication for untiring efforts in the publication of this book.

NAVNEET KUMAR

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Versatile Role of
Architects in
CPWD

ROLE OF ARCHITECTS IN A TYPICAL CONSTRUCTION PROJECT

CPWD is a multi - disciplined organization with officers having core competency in the field of civil engineering, electrical and mechanical engineering, architecture and horticulture. Involvement and close co-ordination between all the four wings is of prime importance for efficient planning and smooth execution of the work.

Projects are allocated to Sr. Architect unit, based on their jurisdiction, by the Chief Architect. Projects with value greater than INR 100 Crore are dealt directly by the office of Chief Architect. The office of Senior Architect is the typical working unit consisting of Architects, Deputy Architects, Asst. Architects and Assistant (AD)s.

A stage-wise involvement of a typical construction project has been depicted in a graphical manner. Also, the role of client and CPWD engineers has been highlighted wherever their inputs are required.

1. Preparation of Concept design, Preliminary Drawings and Specifications: Role of Architects, in a typical construction project, begins at the project initiation / conception stage where they are responsible for collating and assimilating client requirements. Architects are the mastermind behind the project design. Architect visits the site to have an overview of the same and interacts with the representative of client and colletes their requirements. Requirements are formulated into space functions and conceptual design of the building and discussed with client. Architect accommodates additional requirements, if any. After finalization of concept he prepares preliminary design and specifications and obtains approval on the same from client.

2. Preparation of Submission drawings and obtaining approvals from local authority and other statutory bodies like CFO, Urban Arts Commission, Airport Authority of India etc.: The preliminary drawings approved by client are converted to submission drawings by detailing them to the desired extent, including elevations, sections, area details and other required details. Building services are incorporated with inputs from the Engineering wing. These drawings are submitted to various authorities for seeking approval. Regular interactions with the authorities are carried out for making any additions / alterations as and when required in order to obtain their approval on these submission drawings.

3.Preparation of working drawings and detailed specifications: After seeking approval from various authorities, structural and detailed electrical and air-conditioning inputs are obtained from Civil and Electrical Engineers respectively. These drawings are then converted into working drawings for carrying out construction at site. Detailed specifications are also prepared by the Architects, for preparation of detailed estimates by Engineers.

4. Inputs at Construction stage: As the construction starts, Architects are required to make

site visits and issue detailed drawings e.g. details of doors / windows, flooring pattern, toilets, kitchen, false ceiling and various other details as per requirements of building/ project.

5. Project completion: Once the building is completed, completion drawings as per actual construction done at site are prepared by the Architect for seeking completion from local authority.



CENTRAL VISTA ADVISORY GROUP (CVAG)

The requisition of development of the Central Vista and Secretariat complex had been engaging the attention of the Ministry of Works Housing and Supply since 1962. In view of the national importance of the area and the need for its planned development, it was decided to bring the entire area under strict architectural control. No construction or development in the area extending from the Rashtrapati Bhawan to the C- Hexagon around the India Gate would take place without the specific approval of the Government of India in the Ministry of Works Housing and Supply. It was also decided to setup a specialized study group of Architects and Town planners to advice the government on such aspects of the development of the central vista and secretariat complex as may be referred to it from time to time. The composition of the study group as per OM no. 6/11/62-WI, dated 04/09/1962 as follows:

1	The Chief Architect & Town Planner CPWD	Chairman
2	The Chairman, Indian Institute of Architects	Member
3	One Representative of the Indian Institute of Architects	Member
4	The President, Institute of Town Planners,India	Member
5	One Representative of the Town Planner of India	Member
6	Two representatives of the Town and Country Planning Organisation	Member
7	One senior Architect of the CPWD	Member Secretary

The Chief Architect, NDMC was included as a member of the committee on 09/04/1969.

Keeping in view the changes that had taken place over the years. It was decided by the ministry in 2002 to reconstitute the study group with composition as follows:

1	ADG(Works), CPWD	Chairman
2	Chief Architect(Plg & Des), CPWD	Member Secy
3	Director/ Dy.Secy. Delhi Division. MoUD and P.A	Member
4	Chairman, Indian Institute of Architects	Member
5	One representative of IIA (Northern Chapter)	Member
6	Chairman, Institute of Town Planners, India	Member
7	One representative of Institute of Town Planners, India	Member
8	Chief Planner, TCPO	Member
9	Chief Architect, NDMC	Member
10	Commissioner (Planning), DDA	Member
11	Secretary/ DUAC	Member
12	Joint Secretary, Ministry of	

Broad decisions taken by CVAG



Addition alteration in r/o Armed Forces Dental Clinic, 30 Tyagraj Marg, Proposal was approved in toto on June 12, 2018.



Proposal for Office building for Indian Navy at Tyagaraj marg, New Delhi was approved in 2018 after incorporating the observations suggested by CV advisory group like proportions of dome, color scheme, changes in connecting part of dome to main building and improvements suggested in elevation from Tyagraj marg side.



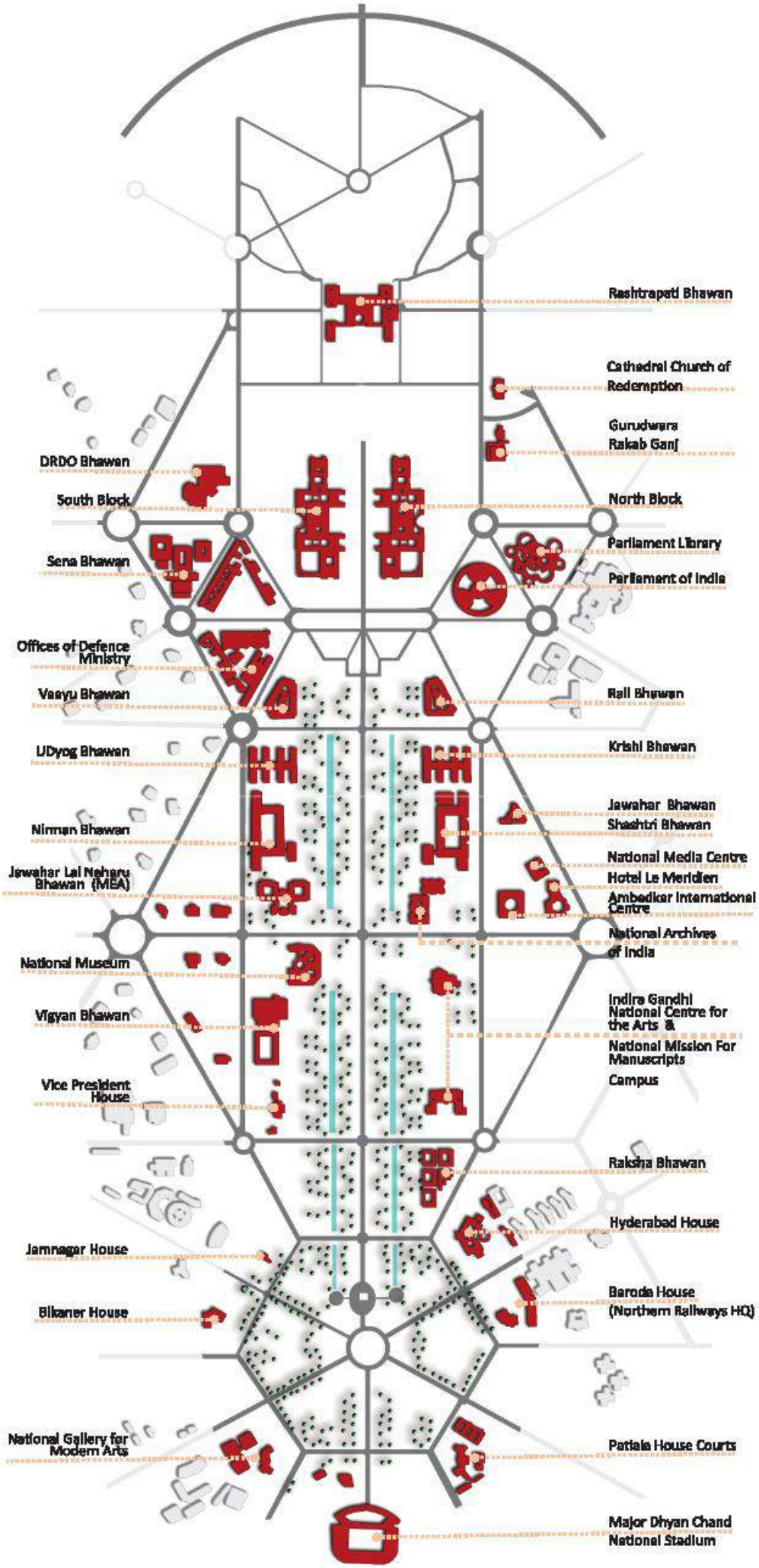
Proposal for construction of War Memorial at "C" Hexagon, India Gate was approved after incorporating suggestions made by CVAG in 2016 i.e. to reduce hard paving area, colour scheme of veteran wall, to maintain symmetry of planned plazas, tri colour landscaping around canopy, restricting height of busts in Param Vir Chakra to 1.5m, providing amenities as per footfall and provision of emergency exits.



Make in India Lion Sculpture installation New Delhi was reviewed after erection in 2016. CVAG suggested removal of glass cage, change in finish and lowering height of pedestal, change of lion's facing etc. And finally the sculpture was dismantled in 2017.



Proposal for construction of Office building of DG S&D at 16 A, Akbar Road, New Delhi was approved in 2017 after incorporating the suggestions made by CVAG like missing imposing character of building, reduction in glass area, proportions of colonnade w.r.t. height of building and increase in height of red sandstone as per LBZ area.



Central Vista

IN-HOUSE PROJECT APPROVALS IN CPWD, DELHI

The Government Building Act of 1899 provides for the exemption from the approval of local body/ municipality for certain buildings and lands which are the property, or in the occupation, of the Government of India and are situated within the limits of a municipality.

In this regard an OM no. 7/3/2016-WII/DG/Vol.III/312 dated 08 June 2017 was issued by CPWD, which elaborates the procedure for getting the approval for the construction projects being designed and executed by CPWD.

All projects in Delhi are being approved by CA(Plg & Des) and CA(RD) based on their jurisdiction and also forwarded to DUAC and CFO for their approval for which CPWD and Public Works Department, GNCTD are treated as 'other local body' in terms of Section 11(1) of DUAC Act, 1973

- A committee is set-up under chairmanship of respective Chief Architect dealing with the project having SE (C), SE (E) & Deputy Director (H) as members, to examine all the drawings and to certify that the building plans conform to the building by-laws, after assessing all the requirements of Electric Load, water-supply, sewerage and horticulture, The committee then submits the proposal in complete shape to respective local body as a notice about proposed construction.
- The Chairman of the Committee i.e, CA will forward the drawings to respective authorities for obtaining all necessary approval from DUAC, Airport Authority of India National Monument Authority, Heritage Committee, Advisory Committee of Central Vista and Chief Fire Office.
- If required, In order to secure Environmental Clearance, a consultant may be appointed as per the guidelines laid down in CPWD Works Manual.

Several projects have already been submitted and are under the approval process in the office of CA(Plg & Des) and CA(RD). Some of the already submitted projects for in-house local body approval in CPWD are:

CA(Plg & Des)

- Govt. of India Press, Minto Road, New Delhi
- Redevelopment of Type Quarters (Block2, 3 and 12) in President's Estate New Delhi
- Type 7 GPRA at Pkt 1 Deen Dayal Upadhyay Marg, New Delhi
- Redevelopment of govt. of India Press, Minto Road, New Delhi
- C/O 120 Nos. GPRA type VII flats in pocket - 1 At DDU Marg New Delhi
- Proposed Multistoried flats for MPs at Dr. B.D. Marg New Delhi
- Proposed 88 No. Type-III Quarters at Probyn road, Timarpur, Delhi
- India Gate Lawn
- Gramin Vikas Bhawan at Curzon Road
- Reception Centre at Rashtrapati Bhawan
- PM Museum at Teen Murti Bhawan
- Upgradation of 20 Nos. flats from D-I type to C-II type at Rabindra Nagar, New Delhi

CA(RD)

- Redevelopment of Bhavishya Nidhi Enclave (Residential Complex), EPFO at Malviya Nagar, Delhi
- Redevelopment of GPRA at Mohammedpur, Delhi
- Redevelopment of GPRA at Thyagraj Nagar, Delhi
- Redevelopment of GPRA at Kasturba Nagar, Delhi
- Redevelopment of GPRA at Srinivaspuri, Delhi
- Akshaya Urja Bhawan, Office of Ministry of New and Renewable Energy, Lodhi Road, Delhi

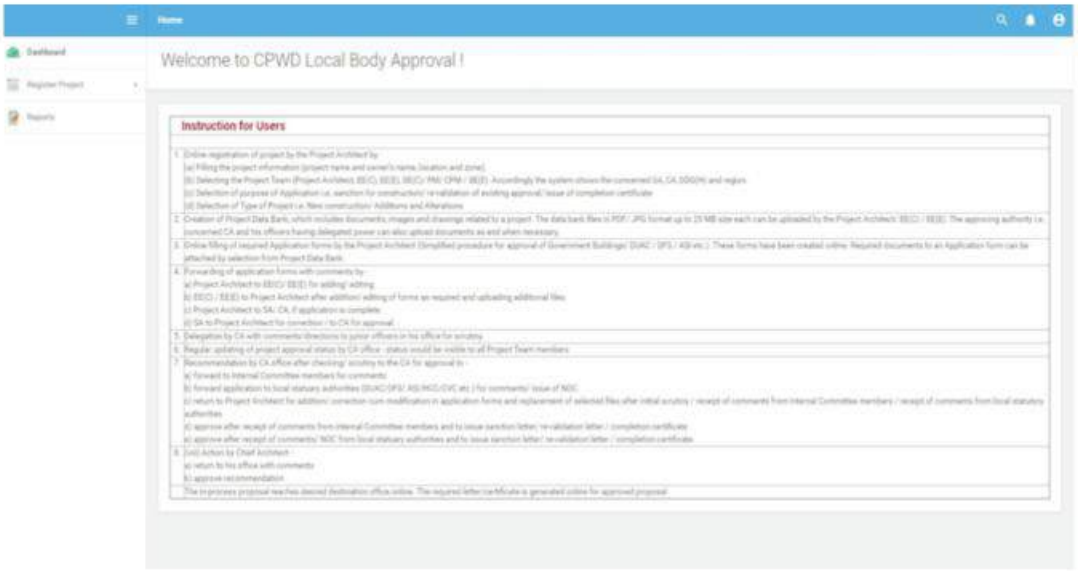
- National Center for Integrated Pest Management- Mehrauli, Delhi
- Office of Chief Labor Commissioner, Dwarka, Delhi
- Delhi Public Library, Paharganj, Delhi
- School of Planning and Architecture, Vasant Kunj, Delhi
- Research Center for BSNL at Ghitorni

Among the projects approved in-House by CA and submitted online to DUAC for approval are:

S No.	Project Name	Built up area (Sqm)	Status of Approval from DUAC
1.	National Center for Integrated Pest Management- Mehrauli	31040	Approved
2.	Delhi Public Library – Paharganj	4848	Under Consideration
3.	School of Planning and Architecture (New Campus)	87000	Under Consideration

Online Local Body Approval Module: e-Governance unit of CPWD has developed an online local body approval module for registration, processing and online integration with other local statutory authorities and issue of approval / completion certificate by CAs for in-house Government Projects being undertaken by CPWD in Delhi.

The module is integrated online with DUAC. The DUAC application form with required documents can be submitted online by CA, CPWD to DUAC can send comments / NOC online to CA, CPWD.



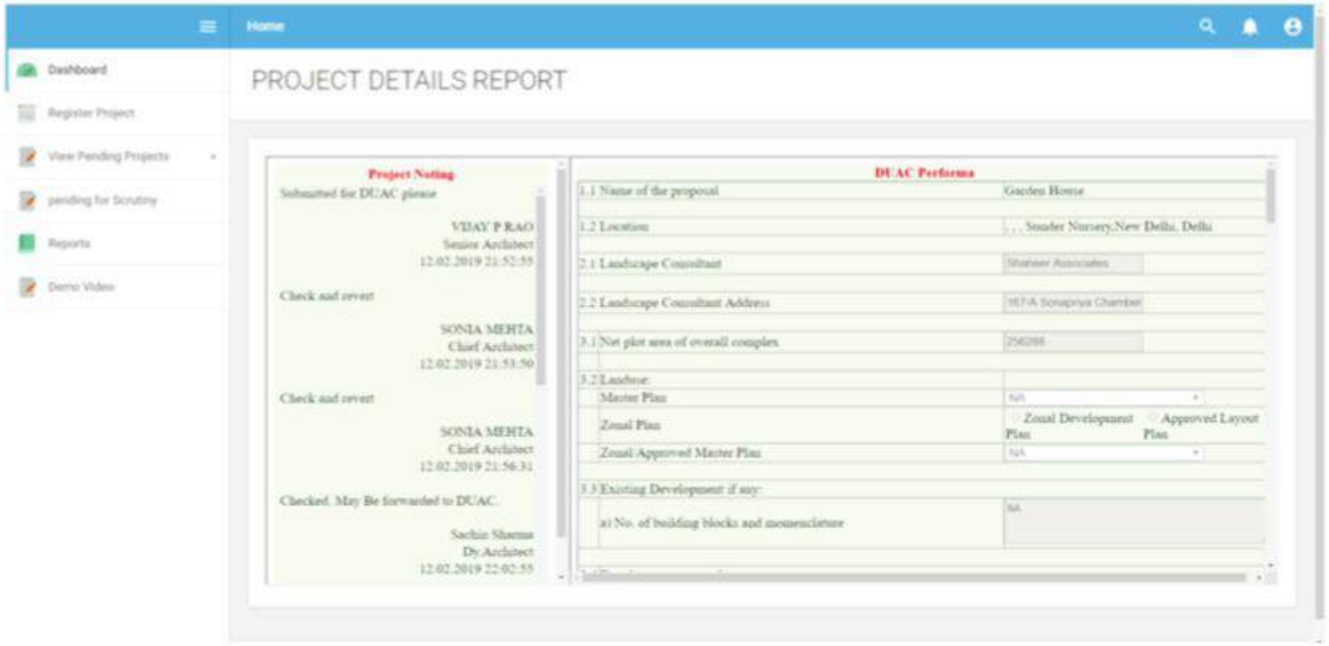
Snap shot of Online Local Body Approval Module of CPWD



Delhi Public Library, Paharganj

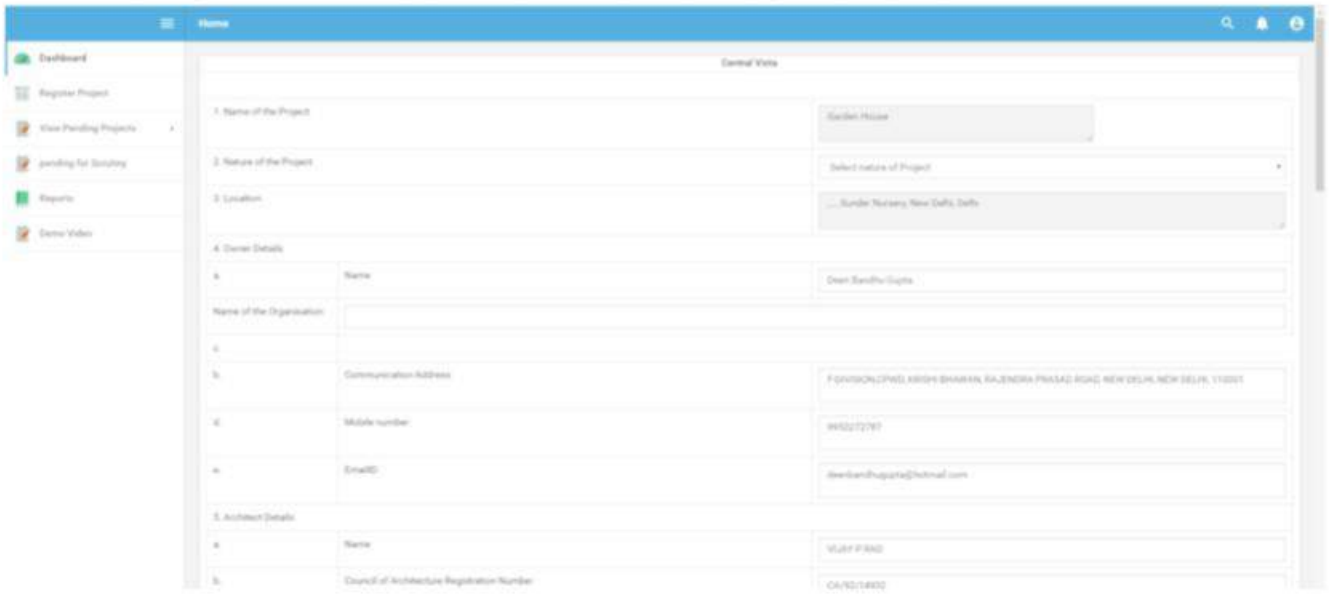


NCIPM, Mehrauli



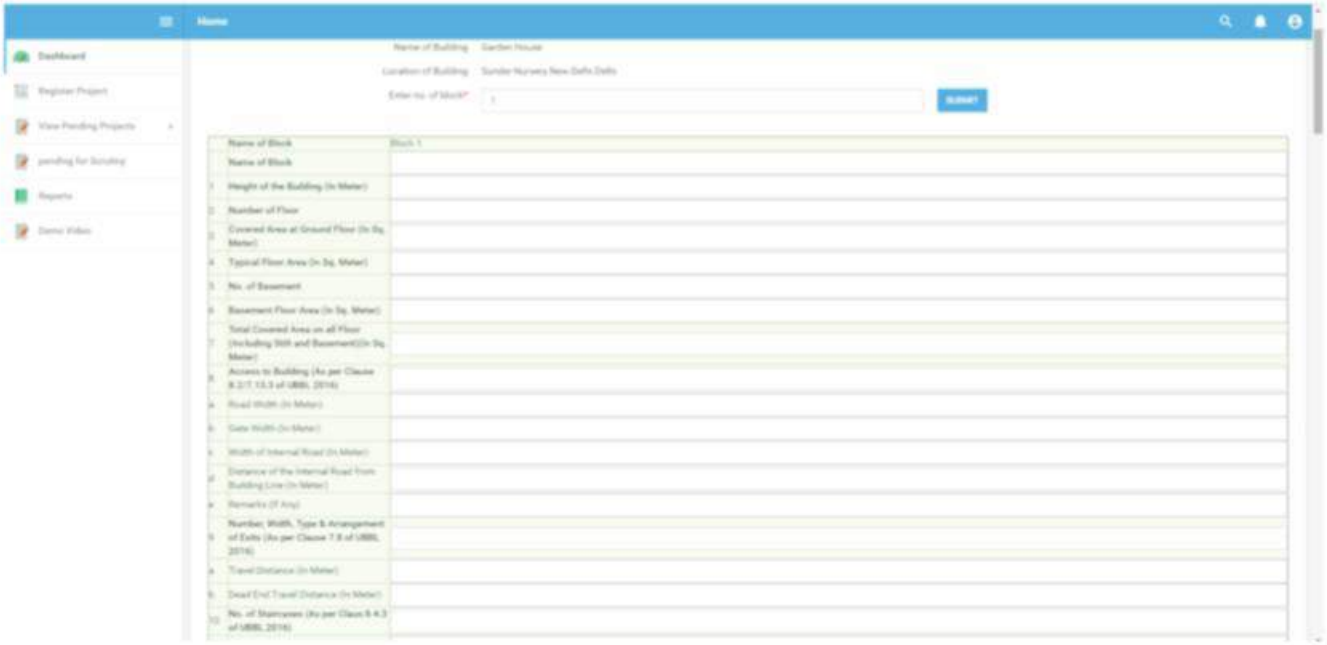
Module to sync with Delhi Urban Art Commission

The proposal to the DUAC is submitted by the CPWD Architect through his PIMS ID. All the details of the project is submitted through online module. The project is discussed only through the video conferencing.



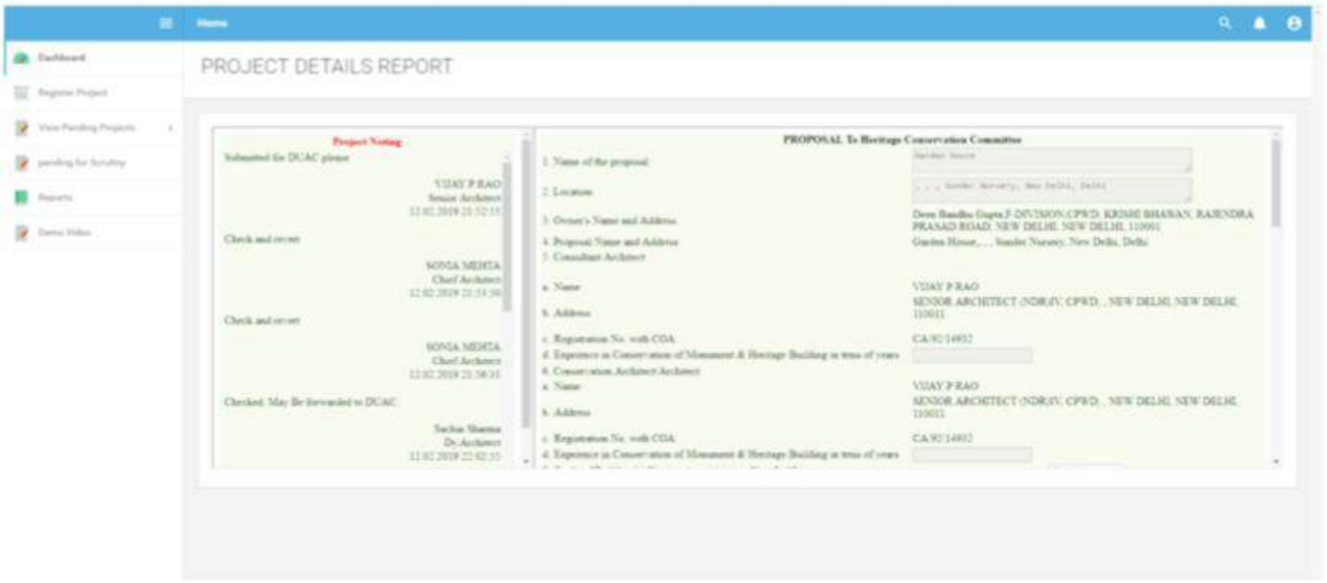
Module to sync with Central Vista Advisory Group

To obtain the Central Vista Advisory Group Approval the details of land allotment letter has to be put up by the Certified Architect. It is mandatory the proposal to have 3D views and walkthrough to show the various aspects of planning.



Module to sync with Delhi Fire Service

For submitting the proposal the Delhi Fire Services the details of Mechanical Ventilation System , Compartmentalization and fire egress provisions needs to be provided for obtaining the No Objection Certificate.



Module to sync with Heritage Conservation Committee

The proposal to the HCC is submitted by the CPWD Architect through his PIMS ID. All the details of the project is submitted through online module.

HERITAGE CELL OF CPWD

The Heritage Cell of CPWD was constituted to take care of all the heritage buildings under the ambit of MoHUA, vide MoUD OM No. 2/11/2011/-WII (CPWD)/EW-I dated 30/03/2012. it is headed by ADG(Works) as overall in charge with CA(Plg & Des) as its chairman. It is created for undertaking conservation and maintenance of heritage buildings owned by Government of India and its agencies. The cell also renders advice to field units in CPWD, MoHUA and other ministries on conservation and restoration of heritage buildings. The execution is taken up by the respective CPWD Engineers.

The recommendations of Heritage cell cover an array of subjects related to conservation, such as adaptive reuse, restoration, renovation, preservation, retrofitting and lighting of heritage buildings.

National Academy of CPWD, Ghaziabad, organizes training session and specialized courses at the regional level to bring awareness among the Architects and Engineers of CPWD about the conservation and restoration of the Heritage buildings. Efforts are being made to associate SPA Delhi, INTACH and Aga Khan Foundation etc. for the preparation of specialized training capsules, to train architects and engineers of CPWD.

Items related to the preservation of Heritage structure after consultation with ASI have also been included in the DSR-2012.

CPWD has numerous drawing related to the Heritage buildings in its documentation centre. Efforts are being made to digitize these drawings for proper documentation, reference, ease of accessibility and sharing.

The recent project under consideration of Heritage Cell is Gorton castle building at Shimla.

GORTON CASTLE BUILDING AT SHIMLA

The building was commenced in November 1901 and completed in May 1904. The original design of this building was conceptualized by Sir Swinton Jacob with the expenditure of Rs. 13,42,901.

Presently, the Castle houses the office of Pr. Accountant General of Himachal Pradesh. It has many special features as shown below which resemble Neo-gothic and Rajasthani style, some of which are described as under:

- The building has high pitched roof with Nainital pattern iron sheets, ornamental dormers, gutters, valleys, ridges, wall and chimney flashing etc. adding to the aesthetics. Special features of flag post add beauty to the artistic roof line.
- Balconies have ornamental stone work in Rajasthani style with stone railing, jalis, balusters and handrails on ornamental stone bracket carved out of single stone. It has

ornamental copings/arches/Mehrabs at number of locations, that enhance the aesthetics of the structure.

- Tall canopies having steep sloped conical shape up to 75-80 degree slope and having height up to 9m add to the aesthetics of the building improving overall sky line of the location.
- Glass roof in the central staircase area over wooden ornamental trusses avoids artificial lighting during day time.
- Central staircase has ornamental cast iron railing with wooden treads and risers and ornamental hand rail which enhance the aesthetics of the interior of the building.
- Two big central courtyards take care of passages of number of services like rain water drainage and fire hydrant lines etc.
- A Major fire broke out on 27-28 January 2014 causing massive damage to the building. Top two floors including the roof were totally gutted in fire causing severe structural damages to most of the components of the building.



Special features of Gorton Castle, Shimla

This building is listed as one of the heritage buildings by Himachal Pradesh Government, as well as by Ministry of Urban Development, Government of India, New Delhi. Therefore, Heritage Cell of Ministry of Urban Development visited this building.

After inspection of the building, considering retrofitting measures suggested by CBRI Roorkee and original drawings of the British architects prepared during original construction, the members made the following recommendations in order to retain heritage character of the existing buildings:

- Walls to be reconstructed using matching stones with lime/cement mortar.
- Floor finishes to be matching with the already existing flooring- Mosaic/ CC flooring.
- Minimum amount of false ceiling to be used. Item for false ceiling- Calcium silicate/aluminum perforated/aluminum strips.



- All doors to be built as per original design and specifications.
- Doors/windows frames and shutters, staircase roofing and railing, eve boards, jalis, cornices and arches to be matching with the existing ones.
- All toilets with modern fixtures and tiles.
- Energy efficient lighting and central heating system to be redesigned.
- Fire place to be restored, but not to be used. Top to be closed keeping the view as it is.
- Open court yards to be maintained. But all round chhajjas added in court yard to be redesigned to merge with the building.
- Chimneys feature to be retained for aesthetics but vent pipes to be sealed.
- All external walls to have exposed stone finish as existing.
- No lift is provided in the existing building. Machine less/ capsule type lifts with features matching to building features may be provided.
- Provisions to be made for barrier free accessibility, Rain water harvesting and DGUs.
- All services may be redesigned keeping visual aesthetics in mind.
- A well-documented comprehensive scheme to be developed for the entire building.
- All unauthorized constructions to be removed. Original building external envelope to be reclaimed. A clear 6 mtr. wide access all around the building for fire tenders should be provided.
- Various features such as cornices, balconies, Jharokhas, eves board, jams, cills, soffits etc to be redeveloped.
- Appropriate seismic retrofit measures to be provided as per recommendation of CBRI, Roorkee.



ROLE OF ARCHITECTS AS TECHNICAL ADVISOR

Office of ADG(Works), serves as the Technical advisor to the Ministry of housing and Urban Affairs (MoHUA) for offering technical advise on land allotment cases with respect to the provisions of Master Plan/ Zonal Plan and Development Control Norms. It carries out timely site visits in order to assess the status of land. It also liaison's with Ministries/ Departments to analyze their requirements in order to assess the appropriate utilization of Government land under consideration.

It is actively involved to offer technical advise during 'Land Allotment Screening Committee (LASC) meeting' conducted by Addl. Secretary MoHUA for allotment of land. It is also invited to offer advice on Master Plan, Building Bye-laws and Development Control Norms by Delhi Development Authority (DDA) during their ' Technical Committee Meeting'.

It participates as a technical expert in the meetings of Heritage conservation committee of DUAC, Council of Architecture, BOW meeting of School of Planning and Architecture, Construction and Coordination Committee of Navodaya Vidyalaya Samiti and the Technical Committee Meeting on HRIDAY (Heritage City Development and Augmentation Yojana to assess the DPRs of the proposed projects under the scheme).

It is instrumental in preparing land development / re-development proposals in co-ordination with Land and Development Office as per the updated Development Control Norms.

In addition to the above activities, it is instrumental in development and updation of Standard designs of General Pool Residential Accommodation (GPRAs), Type II to Type VIII and Type II to Type V for paramilitary forces to be followed at various locations across the country.

Overall besides construction projects, Architectural wing of CPWD plays a pivotal role in matters related to Land, design services for GPRAs and various Schemes of Government of India promoting conscious Urban Development.



Layout plan showing - Land Allotments and land use plan of Deen Dayal Marg

ONLINE LAND REPORTING AND MANAGEMENT SYSTEM

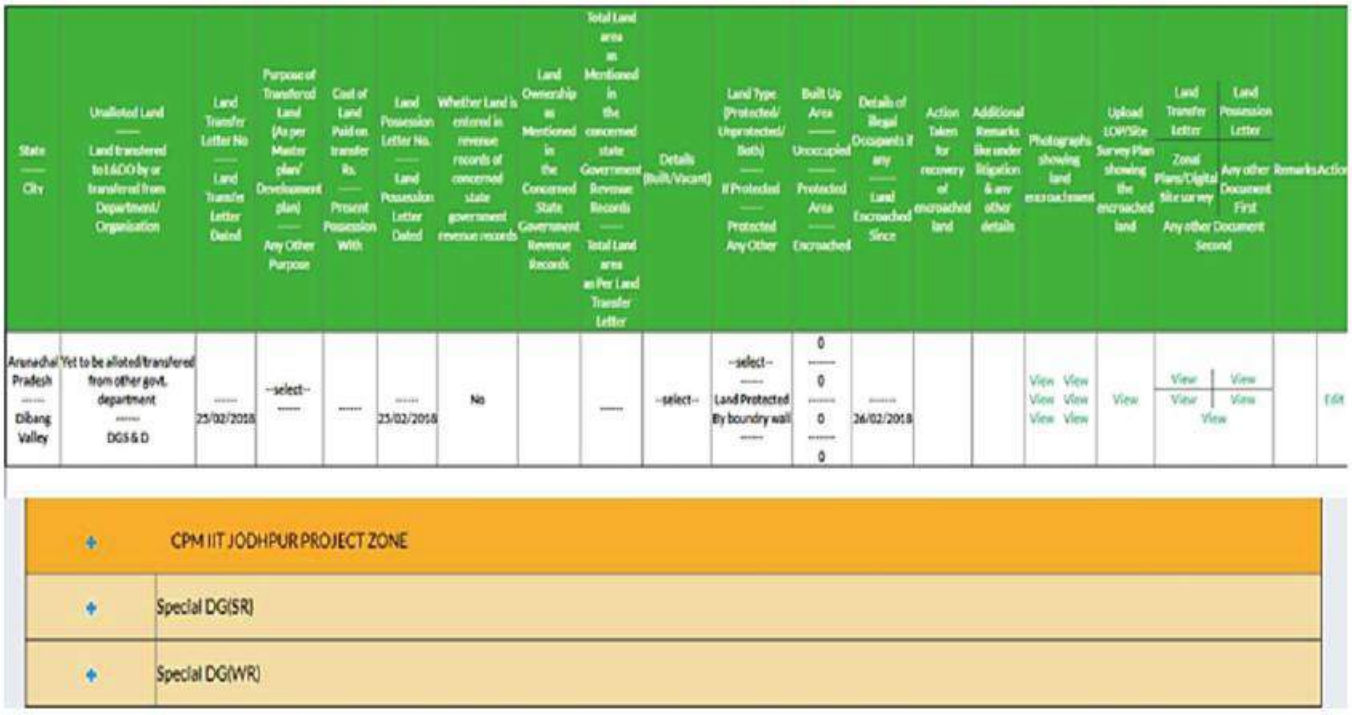
Recently, as per requirement of the Ministry of housing and Urban Affairs (MoHUA) to maintain data bank for Lands available across the country, new module of Land reporting / management system has been developed in-house by the e-Governance unit of CPWD in consultation with ADG(Works) and Land and development officer for online filling up and updating the data of MoHUA lands spread all over the country and under maintenance of CPWD by respective EEs. All kinds of required information have been included. This module includes two separate sheets for updating data on

i. Allotted land

ii. Not allotted / yet to be allotted land and generate separate reports accordingly.

The data can be filled up and edited only by the concerned EEs. The data and the reports can be generated, viewed and printed by the EEs and concerned controlling officers. The required land information / management reports of all MoHUA lands under the care and maintenance of CPWD can be generated, viewed and printed by the ADG(Works), ADG(Tech) and DDG(Works). These reports can be saved in the excel format.

The module for online land reporting / management system in CPWD is accessible through PIMS login on CPWD website.



Snap shot of online Land Reporting and Management System in CPWD

HERITAGE CONSERVATION COMMITTEE

Heritage Conservation Committee is appointed by the Government to advice / decide on the matters related to heritage sites, buildings, precincts, street etc. that are of historic, aesthetic, architectural, cultural or environmental significance; and those natural feature, areas of environmental significance or of scenic beauty. ADG(Works), CPWD is an active member of Heritage Conservation Committee. The Heritage Conservation Committee has been reconstituted vide Ministry of Urban Development's notification no. K-12016/6/2003-DD-I dated 15th September 2016 as follows:

1.	Special Secretary/Additional Secretary, (Ministry of Urban Development)	Chairman
2.	Additional Director General (Works), CPWD	Member
3.	Chief Planner, Town & Country Planning Organization	Member
4.	Chief Town Planner, MCD	Member
5.	Commissioner (Plg.), DDA	Member
6.	Chief Architect, NDMC	Member
7.	Representative of DG, Archeological Survey of India	Membe
8.	Chief Engineer (Structure) in Central Design Organization (CDO), CPWD	Member
9.	Sh. Sanjay Puri (Urban Designer) [Principal Architect of Sanjay Puri Architects, Mahalaxmi, Mumbai]	Member
10.	Dr. Parul Pandya Dhar (Historian) [Associate Professor, Department of History, University of Delhi]	Member
11.	Ms. Vertika Sharma (Conservation Architect) [Advocate, Delhi High Court]	Member
12.	Prof. Dr. Rommel Mehta (Environmentalist) [Professor, Landscape Architecture Department, SPA, New Delhi]	Member
13.	Director, National Museum of National History	Member
14.	Secretary, DUAC Secretary, Delhi Urban Art Commission	Member Secretary

The tenure of the Chairman and Members of other than Government Department/Local Bodies is three years.

The terms of reference of the Committee inter alia are:

- To advice the Commissioner, MCD/Vice Chairman DDA/Chairman NDMC on following issues:
  - Whether development permission is to be granted under the bye-law 7.26 and the conditions of permission.
  - Whether to allow commercial/office/hotel use in the heritage building/precincts and when to terminate the same.
  - Operation of Building Bye-laws to regulate or eliminate/erection of outside advertisements/ bill boards/street furniture;
  - Any other issues as may be required from time to time during the course of scrutiny of development permissions and in overall interest of heritage/conservation;
  - Guidelines that are to be adopted by those private parties or public / government agencies who sponsor beautification schemes at heritage sites;



- To prepare guidelines that are to be adopted by private parties or public/ government agencies who sponsor beautification schemes at heritage sites;
- To prepare a supplementary list of heritage sites, which include buildings artifacts, structures, streets, areas, precincts of historic, aesthetic, architectural, cultural, or environmental significance and a supplementary list of natural feature areas of environmental significance, scenic beauty.
- To frame special regulations/ guidelines for precincts and if necessary for natural feature areas as well.
- To prepare special designs and guidelines/ publications for listed buildings, control of height and essential façade characteristics and other heritage items of the buildings and to suggest suitable designs adopting appropriate materials for replacement keeping the old form intact to the extent possible.
- To appear before the Government either independently or through or on behalf of the Commissioner, MCD/ Vice-Chairman DDA/Chairman, NDMC in cases of Appeals under DDA/MCD/NDMC Act in cases of listed buildings / heritage buildings and listed precincts/ heritage precincts and listed natural feature areas.



Recent projects that have been cleared by Heritage Conservation Committee include DGS&D office building at Akbar Road, several renovation works being carried out in commercial buildings in Connaught Place, and National War Memorial.

DOCUMENTATION CENTER

The documentation center in the office of ADG(Works) acts as a repository for a number of documents of eminent buildings of Government of India. This repository stores approximately 50,000 drawings, photographs, layout plans, models and slides that date back to pre-independence era, including details of legendary buildings such as Rashtrapati Bhawan, Parliament House, North and South Block amongst others although most of them are in very bad condition. About 7000 drawings have been scanned till date which includes Buildings like Bungalows of LBZ, imperial Delhi Government house, Delhi secretariat legislative building, Race course, Tis Hazari court, Krishi Bhawan, Udyog Bhawan among others.

Recently, the documentation center has been facilitated with an A0 size, Flatbed Scanner which is capable of scanning the old drawings for easy maintenance of records in soft copy. Many drawings and models have worn out over the time. Proposal is being worked out for preservation of these drawings/ models for proper upkeep.

The documentation center is presently being renovated which includes creation of an Audio-Visual Room and Exhibition Space for efficient communication and sharing of data.



SUGAMYA BHARAT ABHIYAN

Accessible India Campaign

India is a Signatory to The United Nations Convention on The Rights Of Persons With Disabilities (CRPD) 2008. Hon'ble Prime Minister Shri Narendra Modi launched the Accessible India Campaign (Sugamya Bharat Abhiyan) in Dec. 2015, for achieving universal accessibility for persons with disabilities. Persons with Disabilities Act, 1995 was enacted on 1st January, 1996.

- CPWD Architects were the pioneer to publish the 'Guidelines and Space standards for Barrier Free Built Environment for Disabled and Elderly Persons' in 1998, which became a benchmark in barrier free design.



Features of Barrier Free Built Environment

- 'Handbook on Barrier free and accessibility' as a Modified volume brought out in January 2014, by CPWD Architects.

- 'Harmonized guidelines and space standards for barrier-free built environment for persons with disability and elderly persons' was published by MoUD in 2016 with contribution from CPWD Architects.

- Manual on accessible built environment.



National CPWD Academy, Ghaziabad, MoHUA, has been selected as National Resource Institution for capacity building in conducting access audit of building by Ministry of Social Justice and Empowerment and has imparted training to 165 Engineers/Architects on accessibility audit of Buildings and declared them as BASIC ACCESS AUDITORS.

CPWD undertook the task of making all existing central government buildings under its maintenance completely accessible by providing bare minimum barrier free design features like:





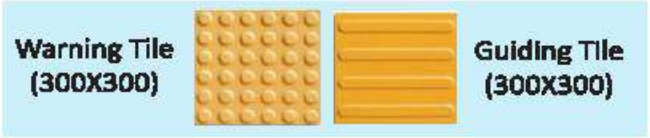
1. Earmarked parking bay for differently abled persons just near to entrance.

- Bay size 3600 x 5000mm
- Just near (not more than 30m) to entrance
- International symbol of parking
- Unhindered path leading to entry ramp.

2. Providing tactile pavers

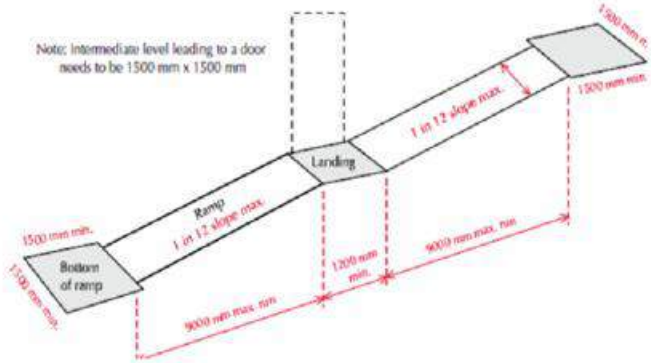
- Providing tactile Pavers of size 300x300mm





3. Ramp at entries

- Ramps at entries 1200 to 1800 mm wide.
- Gradient of 1:12.
- Handrails at two levels 760 and 900 mm.
- Max. length not more than 9 m.





4. Lifts as per prescribed guidelines

- Lift car to have grab bars
- Door opening not less than 900 mm
- Audio announcement with visual display Inside the lift car
- All lift control buttons with Braille



5. One toilet (unisex) on ground floor

- One unisex toilet on ground floor
- Grab bars
- Low height washbasin without vanity
- Low height/tilted mirror
- Automatic flushing systems.





6. Staircases with continuous handrails on both sides and step's edges to be in contrast color with no open riser

7. Reception counter lowered to 800mm

- At least part of counter lowered to 800 mm



8. Drinking water point lowered to 700mm



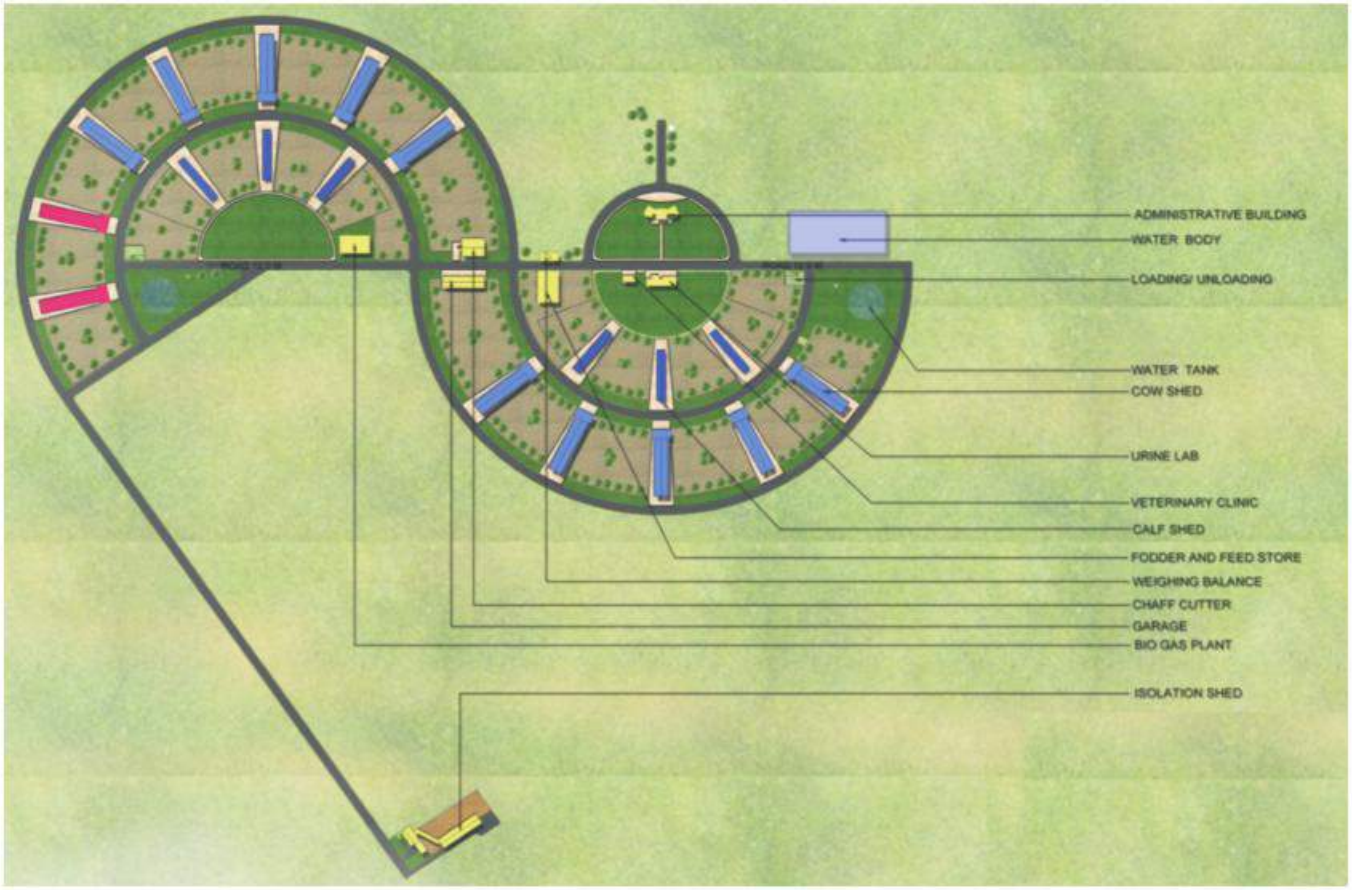
NATIONAL KAMDHENU CENTRE AND GOKUL GRAM

Like GPRAs, certain projects are required to be developed all over India. National Kamdhenu centre and Gokul grams was one such project of this year 2018. Preliminary design of these kind of projects is dealt at Delhi to save time, energy, visits for carrying out study of similar type of project and huge amount of interaction with the client. For these kind of projects, a prototype study is carried out by visiting similar kind of existing project, discussion with client for carrying out modifications in requirements and design as per latest trends and technology. Preliminary design is then developed after frequent interactions with client department, modified if required and approval obtained from client. This approved design is then sent to the concerned chief architect for further developing by incorporating any minor changes due to local conditions. This helps in reduced interaction and fast disposal of the project.

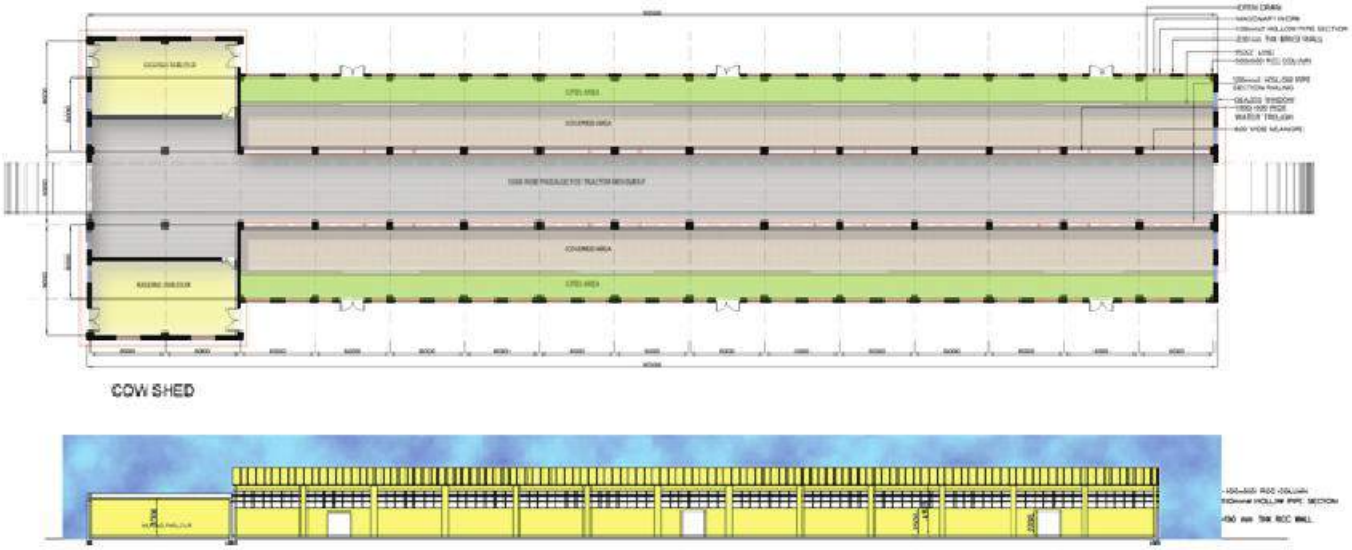
Client:
Ministry of Agriculture and Farmers Welfare

Area of the plot:
10,000 Sqm

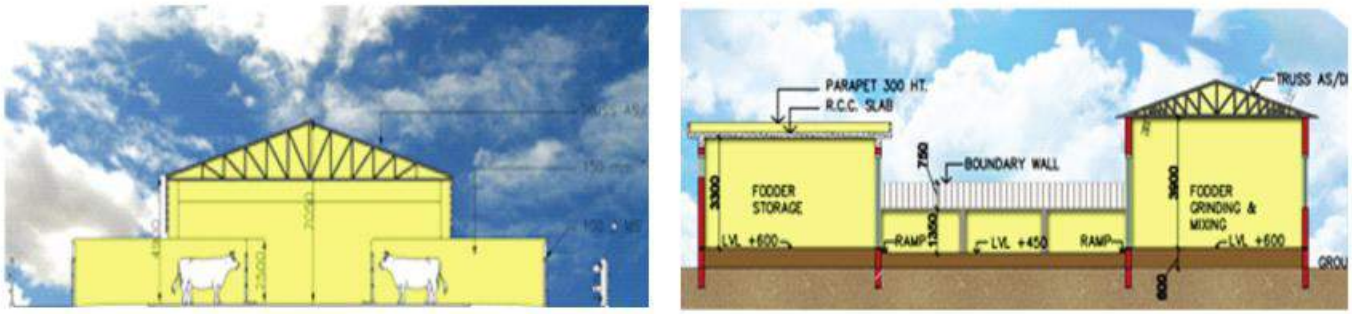
Number of Floors:
Ground + 3 Floors



Kamdhenu Centre Layout Plan



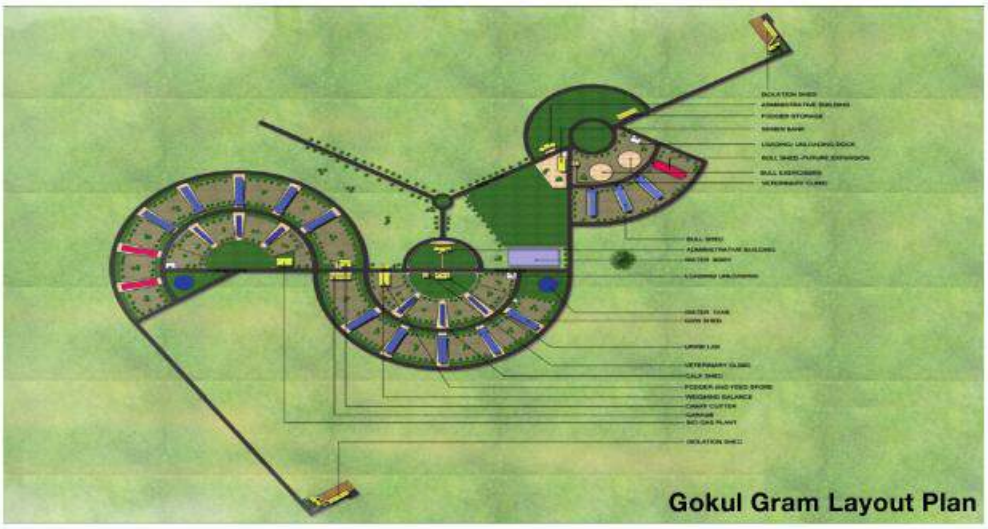
Plan and Sections of Cow shed



Sections of Cow shed

Design Philosophy:

- Circular orientation generates focal points which make it convenient to keep vigil over cattle.
- Layout developed so as to create flexibility in adding or reducing the number of sheds.



Gokul Gram Layout Plan

- Maximum open space with minimum intervention for the breed stock to exercise and give a healthy produce.
- Centralized location of amenities to maximize efficiency and reduce workforce.

WORKSHOPS

The Architectural wing of CPWD held workshops on "Building Bye Laws" and "Conservation of Heritage Buildings" under the direction of DG CPWD to sensitize the officers and to achieve capacity building in the department on the subject. The workshops was inaugurated by DG CPWD and attended by the senior and subordinate offices. Eminent speakers from NDMC, Delhi Fire Services, DUAC, School of Planning and Architecture and officers from CPWD gave an insight on the subject. The event was a great success and appreciated by the participants.

Building Bye Laws

The workshop on building bye laws was held on 11th June, 2019. The participation level was up to Asstt. Arch. / Engineers. The idea behind the workshop was to appraise the officers of the various provisions in the bye laws, Delhi master plan, fire norms and guidelines of DUAC & NDMC. The experts gave an insight about the various norms, guidelines and byelaws a mentioned





i) Dr. Ar. Namrita Kalsi, Chief Architect, NDMC, gave presentation on the Guidelines in LBZ. The expert mentioned the LBZ comes under the Zone D of MPD 2012, having an area of 28.73 sq.km., i.e. 2 % of the total area of NCT Delhi. The Guidelines stipulates that the existing plinth area and height of the main bungalow to be taken as the max. permissible for reconstruction of the DUs. In the existing guidelines there is no provision of increase of area of DU's, basements and stilts. In case the plot is vacant the height of the bungalow to be lowest of the adjoining plots.

ii) Sh. S K Tomar, Delhi Fire Service made the presentation on Fire and Life Safety of Buildings. He explained in the event of fire the Building design should be such that the occupants (including disabled people, children and old people) can either remain in place, evacuate to other part or from the building without being subjected to hazardous, unhealthy and untenable environment. Methods to minimize the reason that leads to the starting of unwanted fires and to protect the building by mitigating the effects of potentially destructive fire.

iii) Sh. Amit Muherjee, DUAC explained the role of Delhi Urban Art Commission in to preserving, developing and maintaining the aesthetic quality of urban and environmental design within Delhi. He explained under DBBL 2016, the sanctioning authority issues building permit only after getting NOC from agencies like DUAC, DFS, AAI, HCC, NMA, DPCC. These agencies prepare Color Coded Zonal Maps on specific areas where the NOC is required on their website.

iv) Sh. Anil Grover, Architect, CPWD gave an elaborate presentation on the MPD 2021, features of MPD 2021. It is a statutory document for the systematic development of urban areas, land use regulation to control the intensity of usage and to provide vital data for spatial planning framework. The Delhi Development Act empowers DDA to make Master Plan and Zonal Development for planned development and punitive action against the violation.

Conservation of Heritage Buildings

The workshop was held on 26th June, 2019. The objective of the workshop was to understand the impact of urbanism and to make the heritage buildings compatible with the prevailing byelaws, NBC norms, fire safety requirements, etc.

CPWD is the custodian of some important buildings across the country like FRI Dehradun, Mayo College Ajmer, Viceregal Lodge & Gorton Castle Shimla, Rashtrapati Bhawan, Parliament House, North – South Block, New Delhi.

Prof. Dr. Rommel Mehta, Former Head, Dept. of Landscape Architecture, SPA, New Delhi, and senior officers from CPWD, Sh. Navneet Kumar, ADG(RD), Sh. K M Soni, ADG(Tech), Sh. Annupam Agarwal, CE(PCWZ) made presentations

The heritage buildings are classified into Grade I, II, III depending on the national or historic importance, architectural style, associated to any historic event and accordingly the conservation is done.

The experts explained every building is unique so for the maintenance of the heritage building it necessary to have a conservation plan. The conservation has two aspects the emergency maintenance like roof repair after storm or broken glasses and planned maintenance are those factors identified to be carried out periodically for the proper upkeep of the structure.

It was also deliberated in the seminar that the expert on heritage conservation is to be consulted before taking up the conservation of heritage building.



CPWD


Architectural
DesignProjects

SUPREME COURT BUILDING, NEW DELHI



The main block of Supreme Court building was built on triangular plot of 17 Acres and the building was designed by Chief Ganesh Bhikaji Deolalikar was the first Indian to head CPWD and designed Supreme Court Building in an Indo – British style. The foundation stone of the Supreme Court Building was laid by the first President of India, Dr. Rajendra Prasad on 29th October 1954. The broad decision taken at the highest level in 1956 was that the 'Supreme Court Building should be constructed in the triangular plot on Hardinge Avenue opposite Hardinge Bridge in conformity with wishes of the Prime Minister, the Home Minister, Minister of works, Housing and Supply and Chief Justice of India". Subsequently, the area has been rechristened and now the building is surrounded by Tilak Marg in the West, Mathura road in the East and Bhagwan Das Road in the South and Tilak Bridge in the North. The design of the building itself is in the shape of a balance with a pair of Scales of Justice. Dr. Rajendra Prasad the first president of India on 4th August 1958 while opening the new building of the Supreme Court said – "I do not think it will fall to the lot of any of my successors to declare open such a 'Temple of Justice'. This noble edifice has been conceived and planned by Engineers and Architects who were trained in their profession according to western standards. The architecture and construction of Building bear testimony of their western experience and skill of high order and they have combined with it our conception of justice. Traditionally we look upon justice as a pair of scales the two pans of which have to be held evenly without allowing the beam from which they hang to incline to one side or the other. We see two wings on the two sides. At the end of each wing is a semi circular structure. They represent the pans which are attached to the beam at the top. This beam accommodate the Court rooms.



The Central beam from the ends of which the scales hang, comprises the Chief Justice's Court at the Centre with two Court halls on either side. The right wing of the structure consists of the Bar room, the offices of the Attorney General and other Law officers and the library of the Court. The left wing consists of offices of the Court.

A black bronze sculpture of 210 centimeter height of MOTHER AND CHILD was installed in lawn of the Supreme Court on 20 February 1978. It portrays Mother India in the form of the figure of a lady. The lady is sheltering the young Republic of India represented by the symbol of a child, who is upholding the laws of land symbolically shown in the form of an open book.

The design of Dharma Chakra Logo of The Supreme Court is reproduced from the wheel that appears on the abacus of the Sarnath Lion capital of Ashoka with 32 spokes. The inscription in Sanskrit "yatodharmastato jayah" means – Truth alone I uphold. It is also referred to - as the wheel of righteousness, encompassing truth, goodness and equity.



Black bronze sculpture MOTHER AND CHILD



Dharma Chakra Logo

VIGYAN BHAWAN, NEW DELHI



The Vigyan Bhawan building was designed in 1955 by R.L.Gehlote of Central Public Works Department (CPWD), incorporating elements of British Raj architecture, evident in the nearby buildings of the Secretariat Building and of Lutyens' Delhi along with Hindu and Mughal architecture, as well as ancient Buddhist architecture, The main feature of the complex is the Plenary hall, with a seating capacity of over 1200 delegates. Besides, it has six smaller halls with capacities ranging from over 65 delegates to over 375 delegates. The building also has a VIP Lounge, the Office block for onsite offices, secretariat and a documentation centre, a Studio, a Business centre and an Exhibition hall. The adjacent building is called the Vigyan Bhavan Annexe added later on with four Committee Rooms and a separate Media Entrance Gate centre. The annexe also houses the Ministry of Development of North Eastern Region (MDoNER) of Government of India. The Vigyan Bhavan Annexe stands adjacent to the Vice President House.



Entrance Gate



Plenary hall

RABINDRA BHAWAN
NEW DELHI

Designed by the Chief Architect, CPWD, Habib Rehman in 1961, this building houses the functions of three academies : Sahitya Academy, Lalit Kala Academy and Sangeet Natak Academy. The objective of these academies is to encourage and promote their respective arts.

The site measures 3 Acres and is located at the corner of Copernicus and Ferozshah roads, with a frontage to both of them.







Views of the Academy building, showing the use of stone, jalis, overhanging roof, running louvers and fire brick.

The design solution consists of the administrative block with three wings of more or less equal length at an angle of 120 degrees to each other and a pentagon shaped exhibition block the form of which follows the curve of the traffic island.

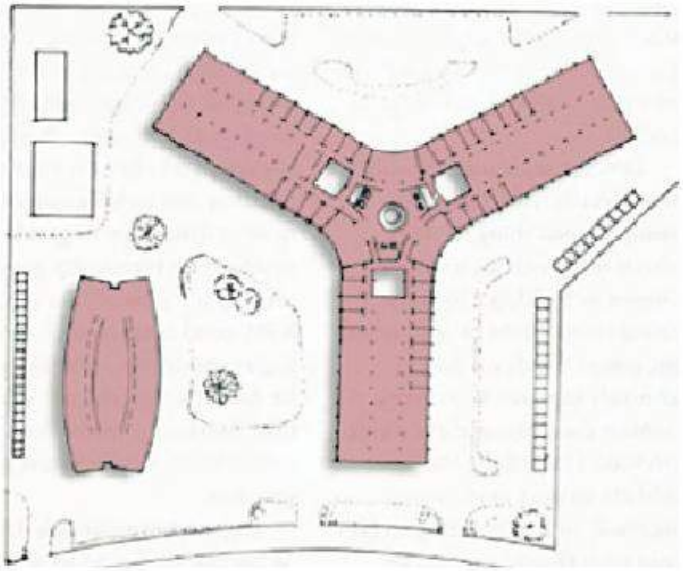
Each 4-storeyed wing of the administrative block houses an academy, the Lalit Kala being in the wing nearest to the exhibition block to which it is connected by a covered walkway. The main entrance in to the administrative block is where the three wings meet. The entrance hall, lift and staircase are placed here, though each of the three wings have their own staircase for internal vertical circulation.

A large library on the ground floor of the Sahitya wing opens out on to the garden. The Sangeet Natak wing is adjacent to the site of the proposed theatre. RCC sunshades in two continuous rows over all the windows have been provided, the lower row in each case being placed on cantilevered brackets so that it is away from the wall and is no obstruction to breeze. sun shades are designed to eliminate the strong morning and afternoon sun.

Information sourced from Architecture + Design , Mar- Apr 1996 issue

INDRAPRASTHA: Y SHAPED BUILDING, DELHI





Indraprastha Bhawan consists of two independent blocks of contrasting design. An eight-storeyed block with a plan resembling a drum(Mridangum) was originally designed to house UN Agencies offices. Its structural columns are expressed as bold vertical lines projecting out of the curved exterior walls. The windows between these columns are staggered on alternate floors to create an interesting pattern. The ground floor is kept entirely free for parking of cars and scooters.

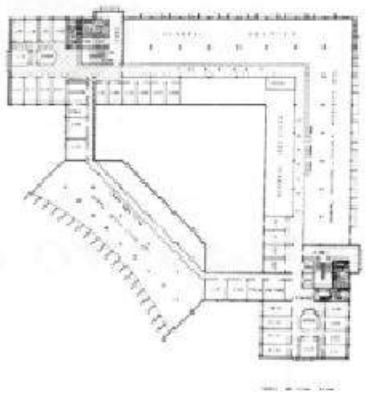


DAKTAR, NEW DELHI

Designed in 1954 to house the GPO and the Posts and Telegraphs Directorate, this building has a façade which follows the curve of Patel chowk. The main lobby level contains the public post office area with one long curved counter.

The roof of the back section of the building has open verandas and covered terraces with staff lunch rooms, a library and recreation hall.











NEW SECRETARIAT
KOLKATA

The West Bengal Government's new Secretariat on Hastings Street, Calcutta, has been planned according to the modern trend in designs of office buildings and architecture such as the United Nations Headquarters in New York and the Ministry of Education building in Rio de Janeiro. Taking greatest advantage of the site and orientation, the building has been designed in three blocks to create a pleasing composition. In order to obtain uniform illumination and maximum ventilation the blocks have been made comparatively narrow. Horizontal and vertical louvers have been used on the east, west and south side of the blocks in order to cut down glare and prevent direct sun rays coming into the room.

GPOA AT TYAGARAJ MARG
NEW DELHI



Design Philosophy

GPOA building has been envisaged as a interlace of Modern and Classical Architectural styles.

The proposed external enclosure and volumetric geometry is the reminiscent of the modern style while the elements & external finishes represent the classical style of Architecture so that it doesn't contradict with the Architectural style of existing buildings in the vicinity (presidential estate) by portraying subtle visual appeal.

Cost:
Rs 450 Crores

Area of the plot:
5.79Acres (23464 Sqm)

Total Built Up Area:
45206 Sqm

Number of Floors:
Ground + 8 Floors

Elements of classical style in the existing surrounding buildings are used accordingly for a pleasing aesthetics so that to be in consonance and in harmonious precinct.



Birds Eye View



Front View



Site Plan

A MEMORIAL FOR BHARAT RATNA SHRI ATAL BIHARI VAJPAYEE

NEW DELHI



Design Philosophy

It reflects the stature of Bharat Ratna Shri Atal Bihari Vajpayee as a mass leader with a global appeal, popular across party lines, rooted in Indian traditions and ethos, a well rounded personality, dignified and all embracing national leader and a noted poet.

His personality has been reflected in simple geometric design forms linked with winding poetic pathways with colorful flowers taking us to the memorial, an open circular place embracing all directions, without enclosures.

Cost:

Area of the plot:
19.67Acres (79616 Sqm)

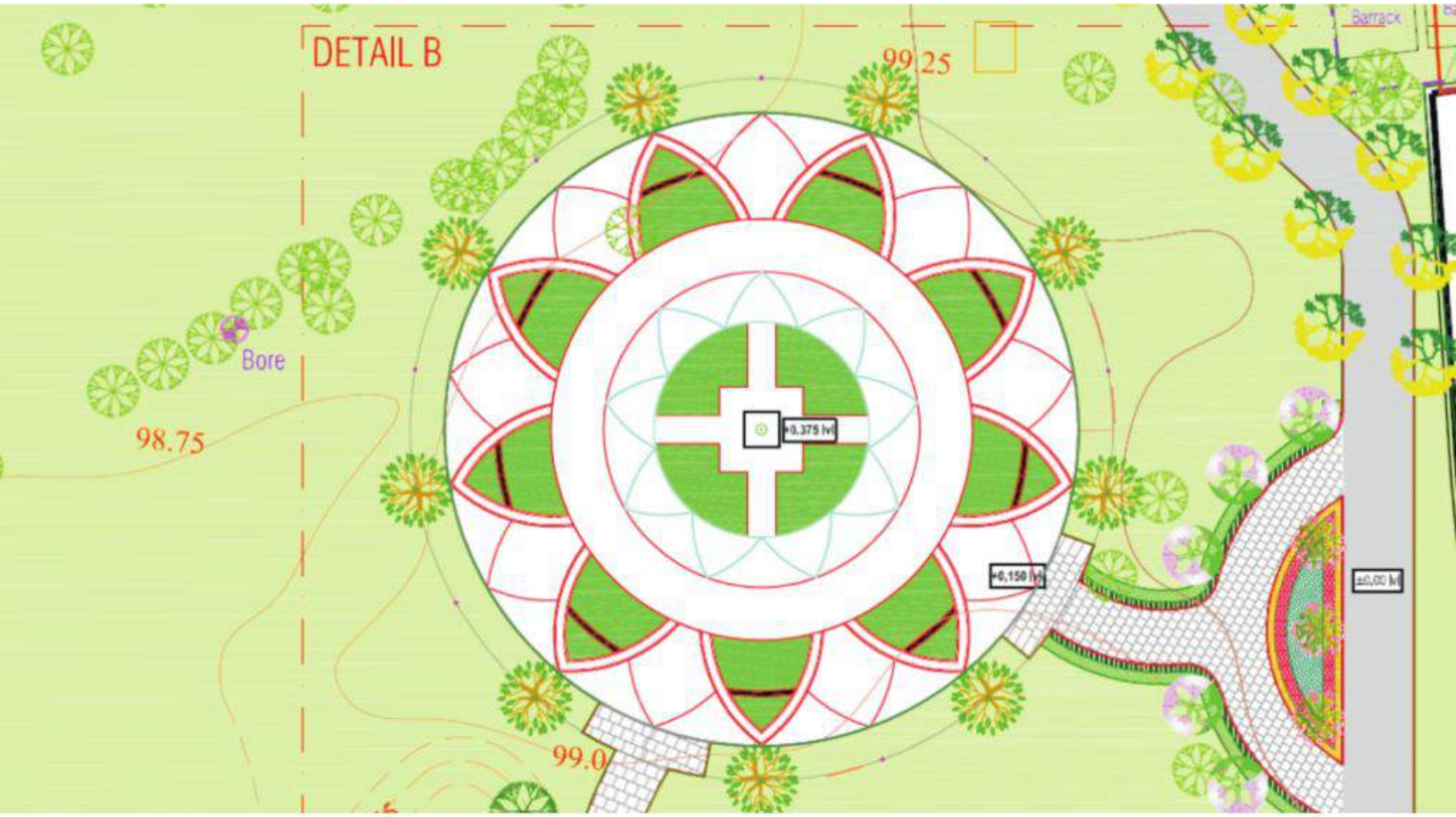
Total Built Up Area:

Number of Floors:
Ground Floor

The symbolism of 9 in Indian culture is reflected in the 9 petal lotus to symbolize the nava ratnas, nava grahas, nava rasas and nava ratris.



View



Plan

WESTERN COURT ANNEXE AT JANPATH
NEW DELHI



Cost:
Rs 80.45 crores

Area of the plot:
7.72 Acres (31,278 Sqm)

Total Built Up Area:
9219 Sqm

Number of Floors:
2B + Ground + 3 Floors

Design Philosophy

Western Court at Janpath, New Delhi was built pre-independence as a hostel for legislative councillors of Imperial Delhi. It is a Grade II heritage building. As per bye-laws, scope of changes in Grade II-A is limited to internal changes by and large subject to strict scrutiny. In Grade II-B, in addition to above, extension or additional building in the same plot or compound could be allowed provided that extension or additional building is in harmony with the existing heritage building(s) or precincts especially in terms of height and facade. Accordingly, design of new constructed 4-storied Annexe building reflects the built form of the existing building in terms of linear planning, symmetry, no. of storeys , classical character of the building and green ambience.

Within height of 3 floors of existing building, new construction has been done for 4 floors. Two basements are provided to cater to parking requirements of existing and new constructed building with some surface parking as well.



Ground Floor Plan



Site plan



Design of Unit



Model Photograph

PARLIAMENT ANNEXE
NEW DELHI







Democracy Wall opposite VIP Ramp



Art work in Double Height Atrium

Design Philosophy

Extension to Parliament House Annexe building, a well organized contemporary transformation of British Classical landscape in to state of art office complex, using species of different climate zones. The building has 2 main blocks, 'A' block is a ceremonial block comprising of 4 committees rooms, Banquet hall, VVIP rooms and Auditorium. 'B' Block is a high rise block for offices of chairman and their committee offices. It is a Green building with 4 star GRIHA rating. It has provision for solar power generation and provides easy access to the persons with disability.

Cost:
Rs 262 crores

Area of the plot:
(39495 Sqm)

Total Built Up Area:
39352 Sqm

Number of Floors:
2B/B + Ground + 2/6 Floors



Committee Room A - Block

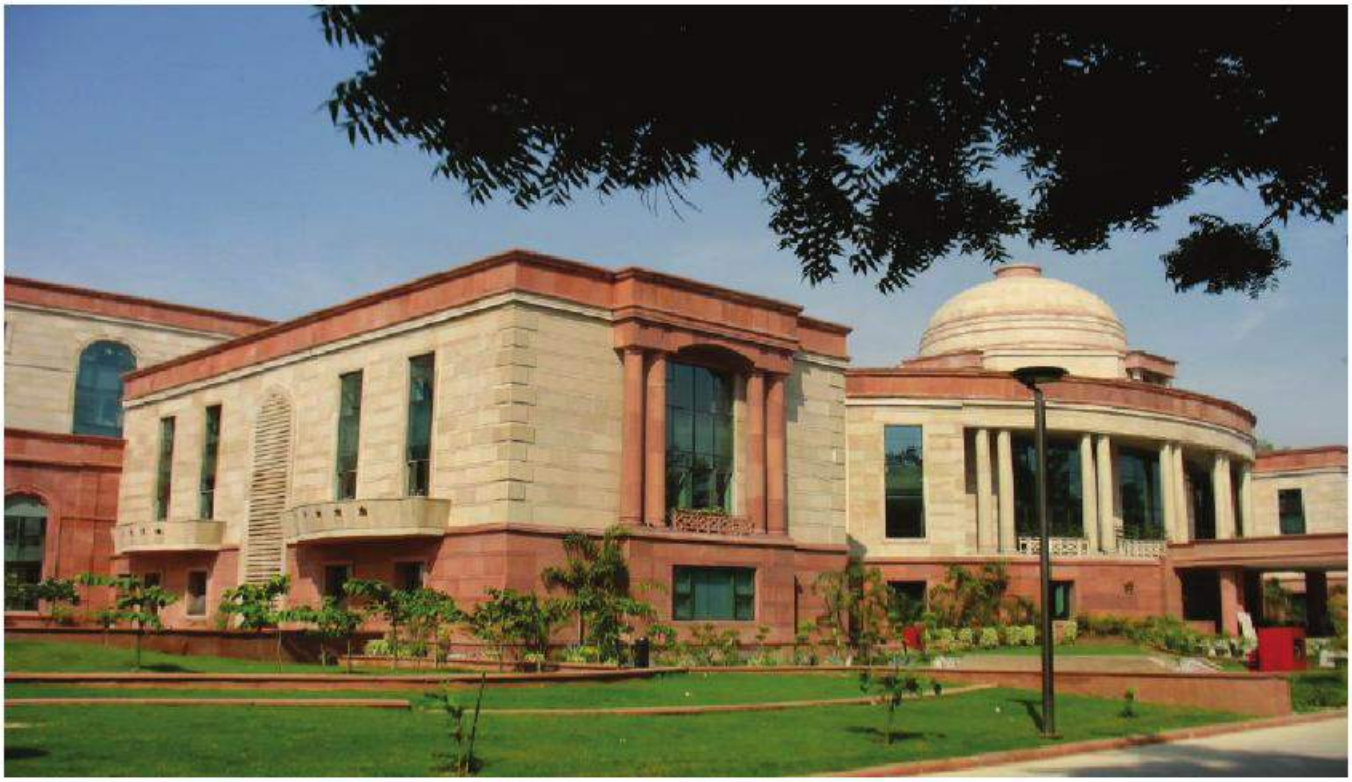


B - Block



Pergola Connecting Block A & Block B Block

JAWAHARLAL NEHRU BHAWAN
NEW DELHI



Design Philosophy

Cost:
Rs 232 crores

Area of the plot:
(31504 Sqm)

Total Built Up Area:
59475 Sqm

Number of Floors:
B + Ground + 3/5 Floors

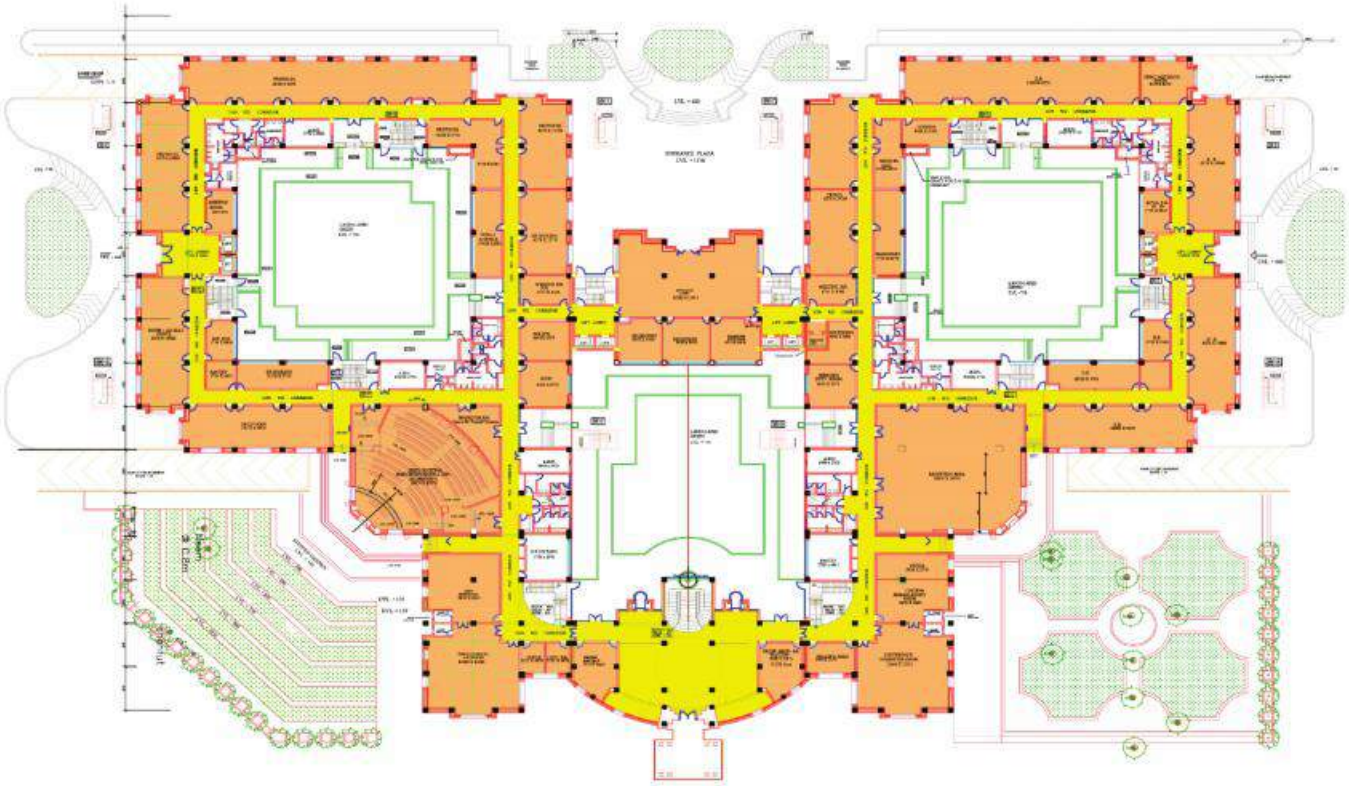
Jawaharlal Nehru Bhawan, the headquarters office building of the Ministry of External Affairs at Janpath, New Delhi, is a contemporary state -of-the - art building in complete harmony with its environment and Sir Edwin Lutyen's architecture in surrounding area. It is the first ECBC compliant Green Building with Certification of 5 Star GRIHA rating. The building has three main blocks, four distinct zones, with separate entrances but inter-connected through corridors and beautifully landscaped courtyards.



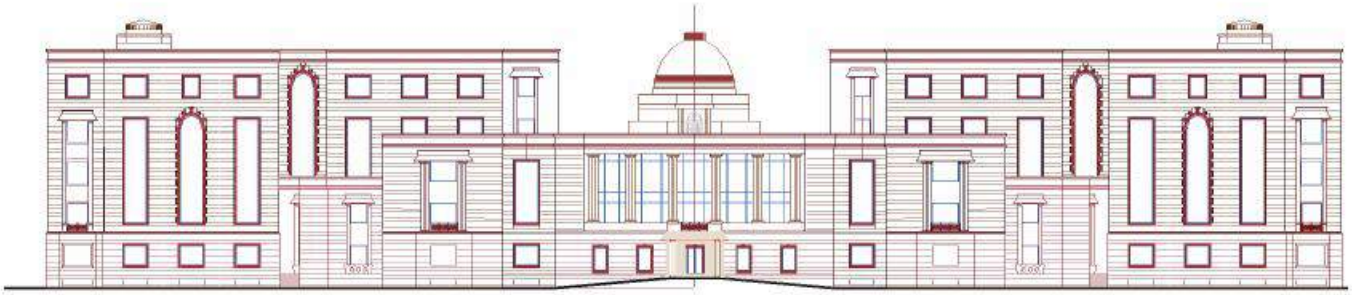
Conference Room



Dinning Room



Ground Floor Plan



Elevation



Landscape of lawns



Vertical Landscaping feature

INDIRA PARYAVARAN BHAWAN, NEW DELHI



Design Philosophy

Cost:
Rs 201.49 crores

Area of the plot:
(9565.13 Sqm)

Total Built Up Area:
30914 Sqm

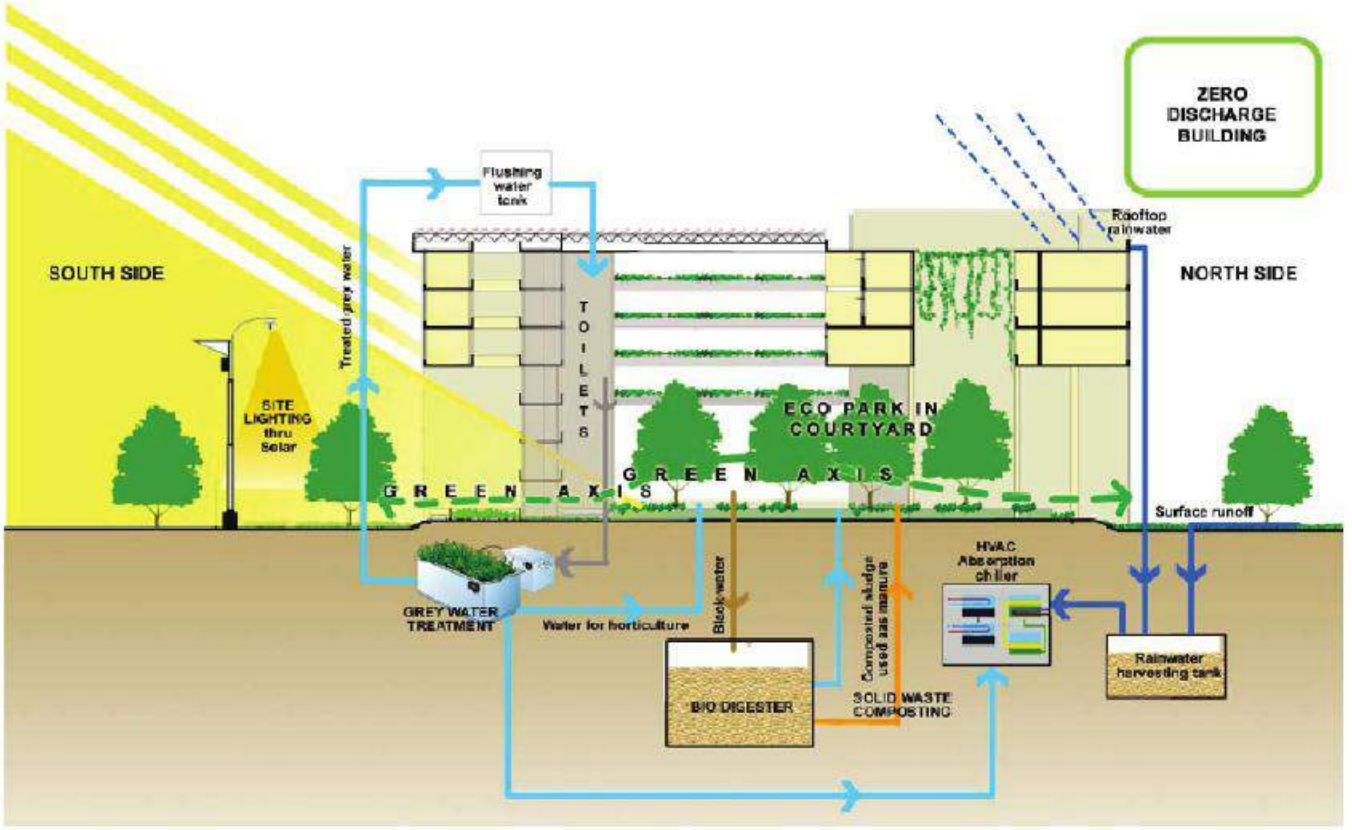
Number of Floors:
3B + Ground + 6/7 Floors

This building is India's first ever "Net Zero Energy Multi storeyed Building with 100% onsite renewable (Solar) Power generation" over and above its highest green ratings i.e. GRIHA 5star and LEED India Platinum. With a Solar Power system of installed capacity 930KWp the building is also the largest roof top Solar system in Multi storeyed buildings in India.

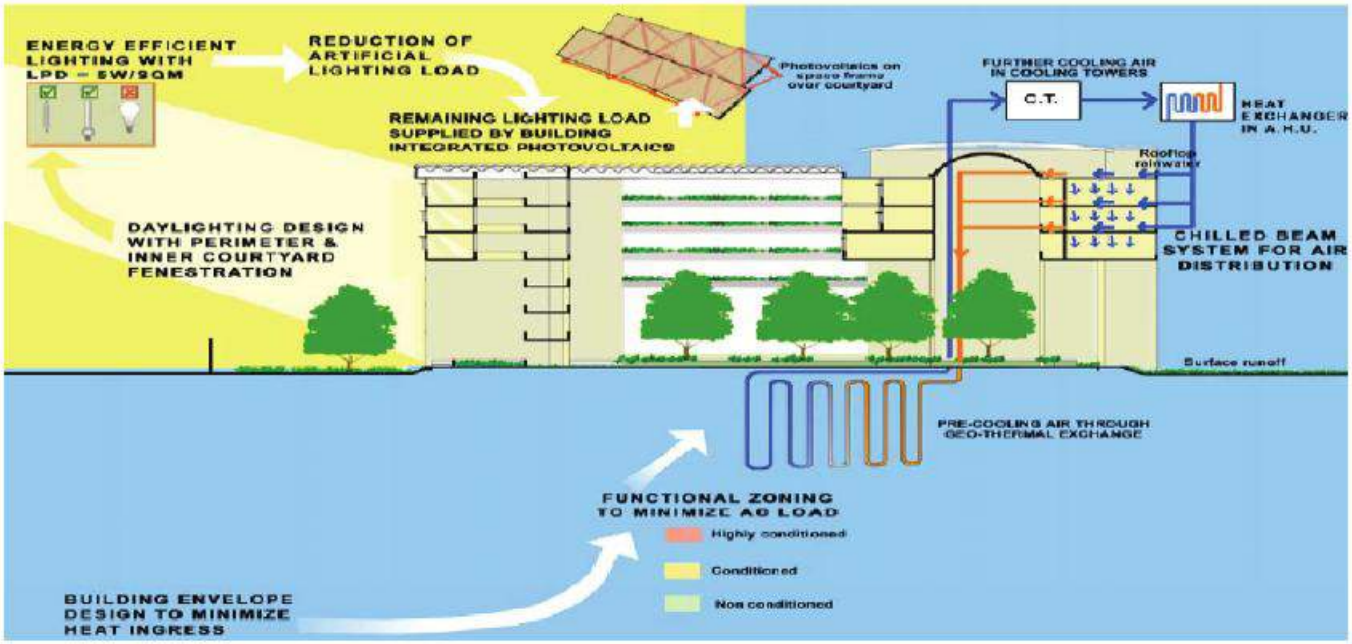
Total energy savings achieved in this building is about 40% and savings in use of water is about 55%. Against the conventional energy demand of 22 lakh units per year for this building, actual energy demand is brought down to only 14 lakh units per year by several energy conservation and sustainability measures.

This entire energy demand of 14 lakh units, is being generated through highest efficiency monocrystalline solar PhotoVoltaic (SPV) panels, located at rooftop. Energy generation using this system was started from 19.11.2013 and is being fed to NDMC grid from where supply is

being taken, thereby offsetting the total energy demand.



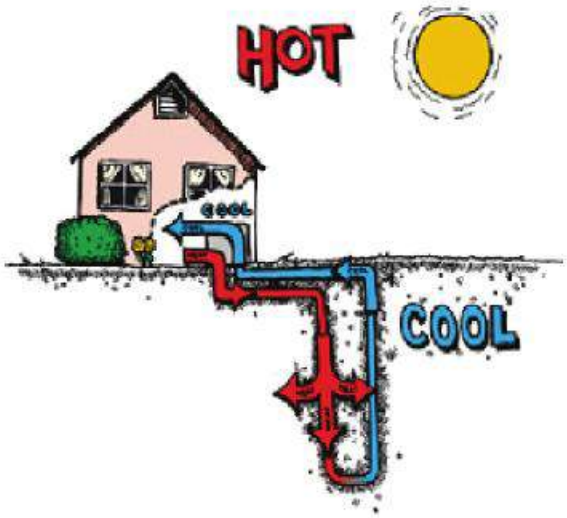
Site and Water Management Strategies



Energy Conservation Measures

The entire central courtyard had to be covered with space frame in order to create the total 2 required area of 6000 m for supporting solar panels, Additionally, MS supporting structure over the terrace had to be extended further by huge cantilevers and at terrace level and fourth floor level on Southern side.

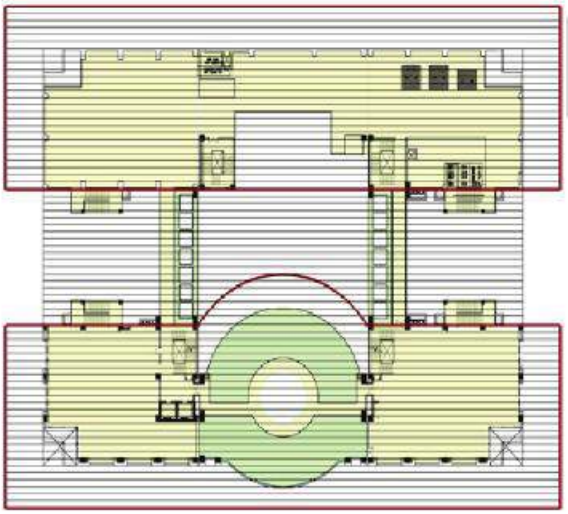
This building has many other rare features like Chilled Beam system of HVAC, Geo Thermal Heat Exchange system, Regenerative Lifts, Fully Automated (Robotic) Car Parking in basements with Zero surface parking, apart from several other green building features.



Geo thermal energy based system

Special Provisions

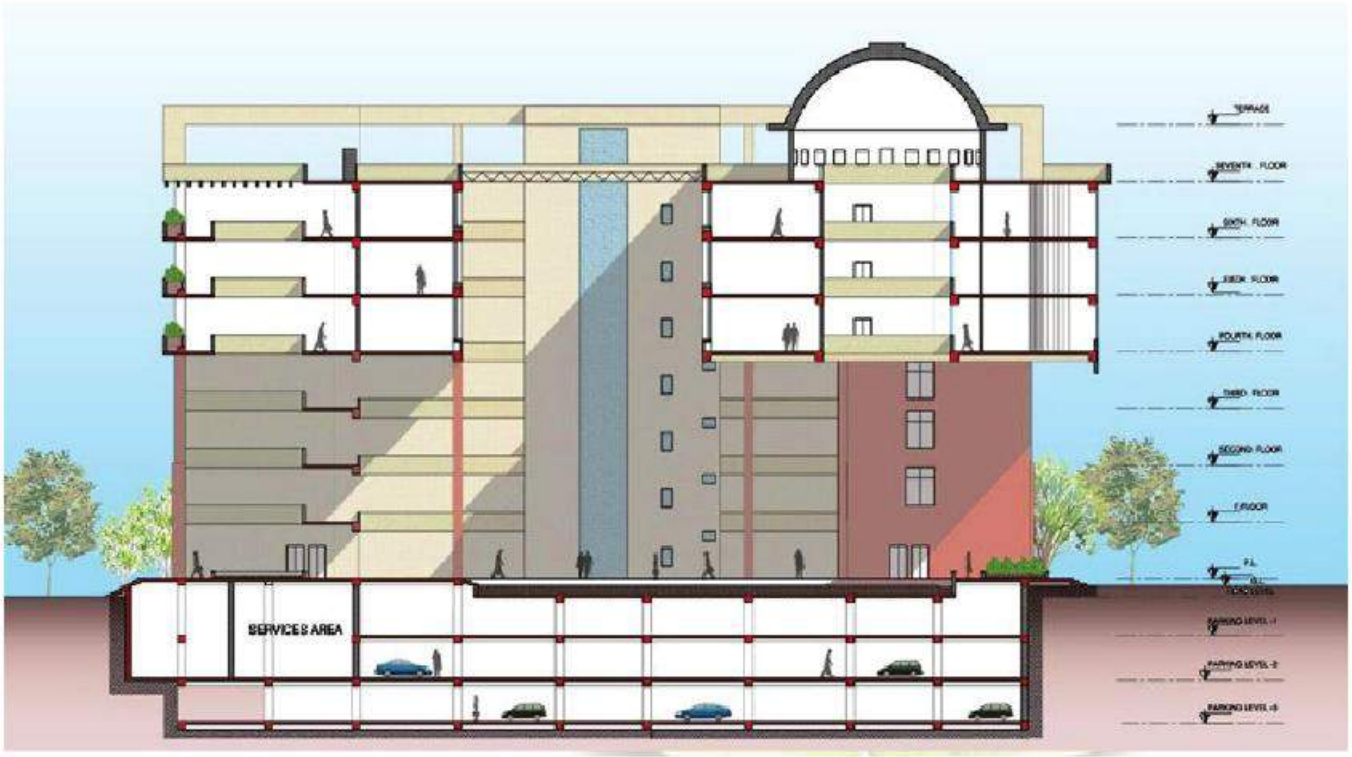
- Solar Passive Architecture.
- 930 KWP Rooftop Solar Power Plant.
- Geo thermal Heat Exchange system below ground.
- Chilled Beam System for Air Conditioning.
- LED Fixtures, occupancy and daylight sensors.
- Robotic Car parking in basements.
- Energy saving regenerative lifts.
- Low discharge water fixtures.
- Eco Friendly Landscaping with no hard paving, eliminating heat island effect.
- Fly ash based products in construction.
- Modular Furniture and work stations.
- Audio Visual systems in Conference halls.
- Sewage treatment Plant 30KLD capacity.



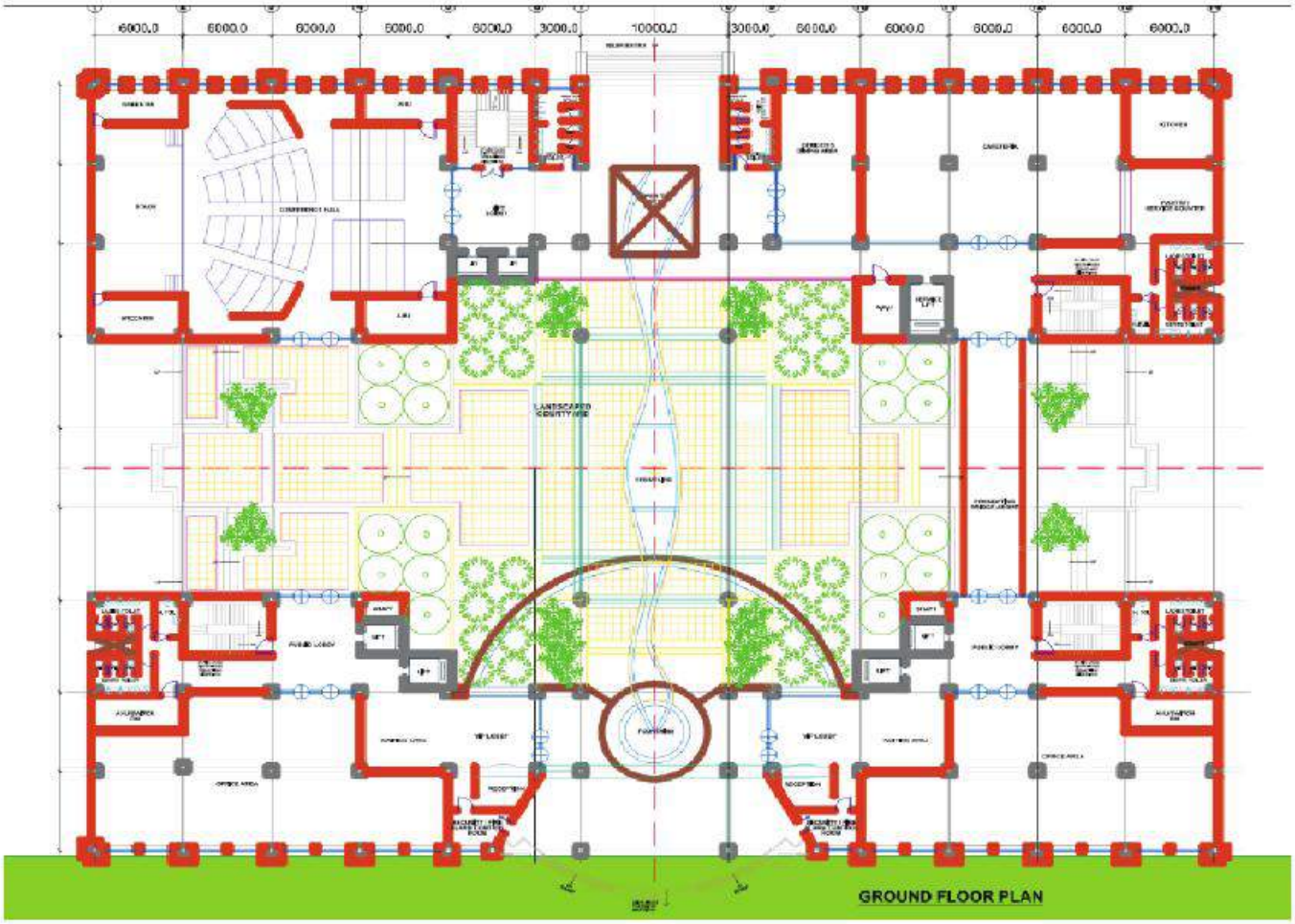
Roof Plan



Solar Panels used on roof top



Section



BARAK HOSTEL, JNU CAMPUS
NEW DELHI



Design Philosophy

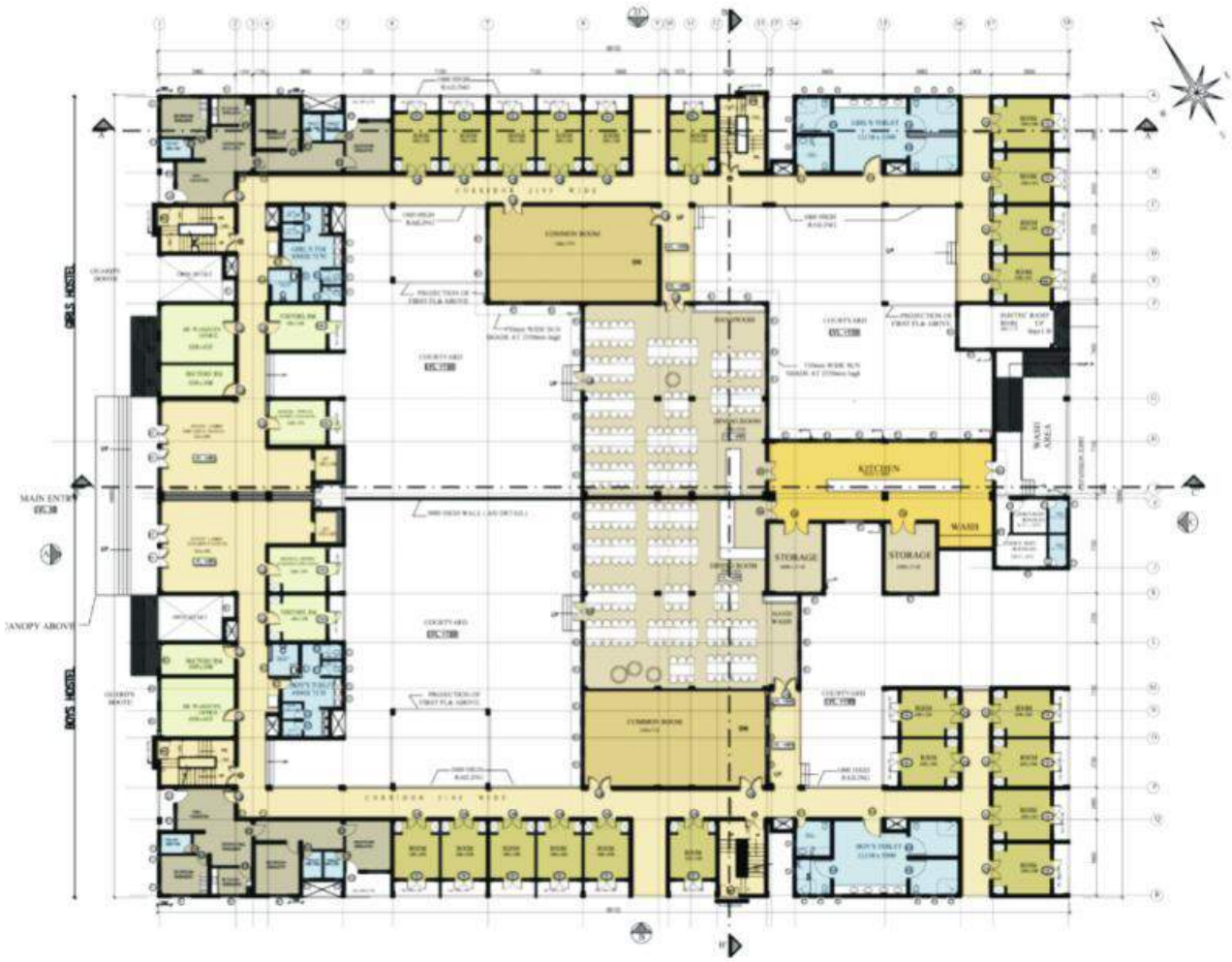
The Barak Hostel building is designed as a hostel block for students from the north east. The building will also serve as an exhibit for rich cultural heritage of the north eastern states through installations and murals. The building is designed to bring about a congenial environment for the students by providing interactive acces such as sit outs and courtyards. The harsh climate of Delhi is mitigated by the courtyard centric planning as well as provision of balconies to cut off the summer heat.

Cost:
Rs 27.31 crores

Area of the plot:
Part of JNU Campus

Total Built Up Area:
9830 Sqm

Number of Floors:
Ground + 3 Floors


GIRLS HOSTEL
BOYS HOSTEL
MAIN ENTRY
CANOPY ABOVE
COMMON ROOM
COURTYARD
KITCHEN
WASH AREA
STORAGE
STORAGE
WASH
COMMON ROOM
COURTYARD


IN
6MTRS. WIDE ROAD
F
152.0 sq. mtrs.
CYCLE PARKING
E
86.4 sq. mtrs.
A
632.5 Sq. mtrs.
CAR PARKING
6 MTRS WIDE ROAD
COURTYARD
COURTYARD
COURTYARD
COURTYARD
D
660.0 sq. mtrs.
6 MTRS. WIDE ROAD
CAR PARKING
PARK
CYCLE PARKING
OUT
6MTRS. WIDE ROAD
B
529.2 sq. mtrs.
CAR PARKING
C
1545.2 sq. mtrs.
CAR PARKING
TWO WHEELER PARKING
TANK

PROPOSED CAMPUS FOR "88 MAHILA BATTALION"

SECTOR-8 DWARKA, NEW DELHI

Design Philosophy

The main purpose of the project is to provide housing facilities for 88, Mahila Battalion personal and have provision of basic infrastructure services like roads, sanitation, water supply and power supply. The project design concept ensures unobstructed views of scenic landscape. The blocks are oriented in order to reduce the heat gain through building envelope and also mutually shade each other. Development of green belt is of immense importance, as it will not only act as pollution sink for dust emissions, gaseous pollutants and noise pollution but also enhances the visual appearance of the developed site. Necessary provisions for barrier free movement of physically handicapped, such as ramps, railings, staircase width, lifts etc. have been incorporated in the design.



Campus Layout Plan





Perspective Views of Type Quarters

Cost:
Rs 140 Crore (Phase 1)

Area of the plot:
(80466.91 Sqm)

Total Built Up Area:
467456.31 Sqm

Number of Floors:
Ground + 4 Floors

BUNGALOW 9 (TYPE-8)
SUNEHRI BAGH, NEW DELHI



Perspective View

Design Philosophy

The Bungalow design retains the architectural design, style, elements such as columns and arches, shading devices (chajjas), etc. and color scheme of the earlier bungalows. The 'Lutyen bungalow style' has been maintained as far as possible and at the same time, the design has been modified to meet the modern lifestyles of the residents. The spaces within have a gradual progression from common / transition spaces to semi – private, private spaces. To enhance privacy and security of the residents the office area has not been segregated from the main bungalow. It has been connected to the main bungalow through a covered pathway.

Cost:
Rs 5 crores

Area of the plot:
(6230 Sqm)

Total Built Up Area:
852 Sqm

Number of Floors:
Ground Floor

Green Building features such as cavity wall, inset windows, Low-E glass etc has been proposed. Since it is a redevelopment project, the design as well construction of the building follows the sustainable building norms to minimize the impact on the existing ecosystem and optimize resource consumption.



Model Photograph



Ground Floor Plan

NARMADA RESIDENTIAL COMPLEX
PRESIDENT'S ESTATE, NEW DELHI



Cost:
Rs 13 crores

Area of the plot:
(15102.32 Sqm)

Total Built Up Area:
4431.8 Sqm

Number of Floors:
Ground + 1 Floor

Design Philosophy

The design is aimed towards minimum environment impact during and post construction. This was achieved by the layout which has the new buildings built on the footprint of the demolished buildings. The natural drainage slopes have also been maintained so as to avoid flooding during rains. The existing trees on site were retained and new trees have been planted in the premises. The design adheres to the LBZ guidelines; more over it has incorporated the Architectural Expression vocabulary and materials of the President Estate, in order to preserve its heritage character which is of national importance.



Type-III Quarter



Site Plan

SCHOOL OF PLANNING AND ARCHITECTURE
VASANT KUNJ CAMPUS, DELHI



Proposed Layout Plan

Design Philosophy

The new SPA Campus at Vasant kunj provides a remarkable opportunity to create a blueprint for an urban campus for the design economy of the 21st century. The scheme recognizes the instituition's long standing reputation as a leader in design education and furthers that by creating a physical framework for it to lead design, social, ethical and global cause and make a lasting contribution through critical thinking, research and innovation.

Cost:
Rs 500 Crore (Phase 1)

Area of the plot:
(79845.961 Sqm)

Total Built Up Area:
1,15,435 Sqm

Number of Floors:
Ground + 5 Floors

Conventional campus paradigm create insular learning environments: a natural setting uncorrupted by the city. The SPA campus, by necessity needs to

be integrated with the city. The city shall be its laboratory for learning and innovation. The campus master plan is hinged on three broad principles:

1. Ecological sensitivity towards the site.
2. Connection with the city and beyond.
3. Creating an inclusive, holistic learning environment.

It has features like Interactive spaces/Spill over for students, Defined different zones of Academic, Hostel, faculty and service zone, Flowing green spaces created by courtyards, Cross ventilation, a serene and pleasant ambience for all, Maximum Daylighting in habitable spaces, Barrier free access for persons with disabilities, Green Areas have been developed on terraces, indigenous plants have been used to reduce demand of water in Landscaping, Drip irrigation for green areas and Rain water harvesting etc.



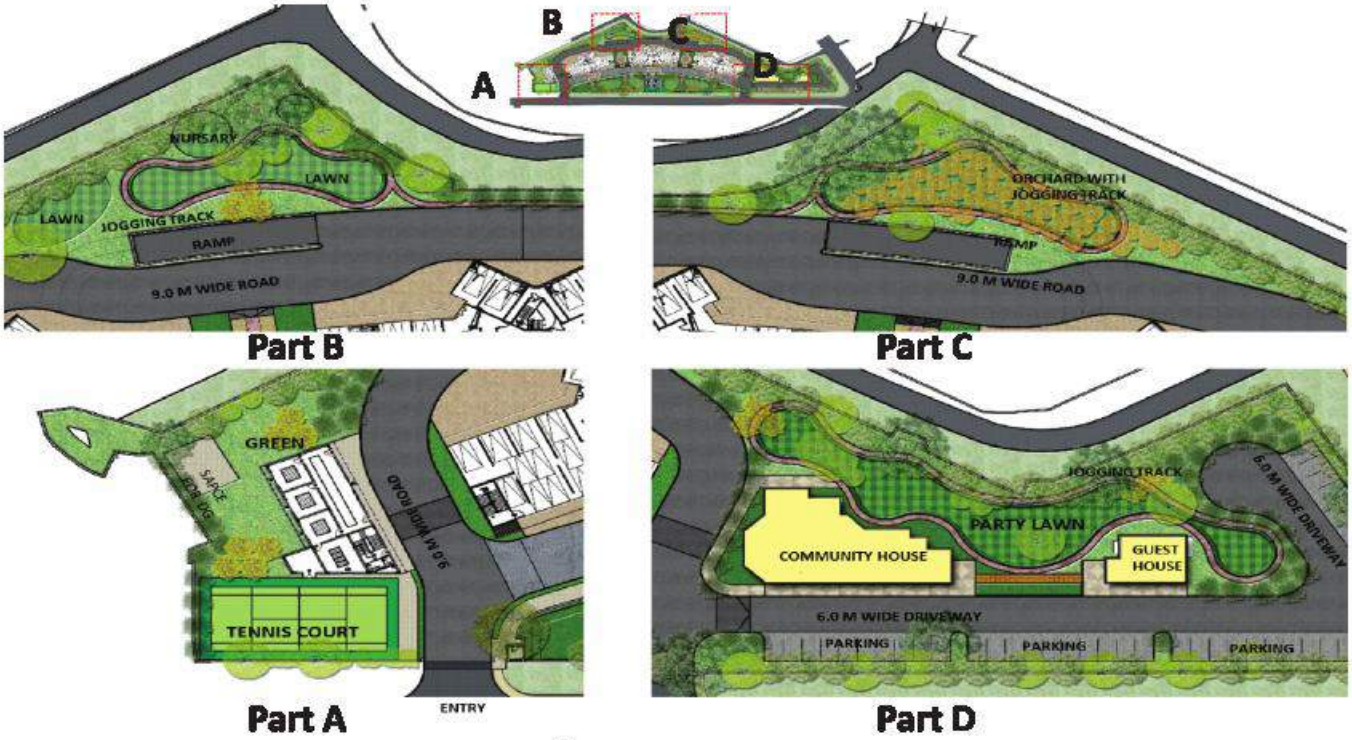


Design Features

MULTI-STORIED FLATS FOR LOK SABHA MPs
DR. B.D. MARG ,NEW DELHI



Layout Plan



Part B **Part C**

Part A **Part D**

Landscape Features



Typical Floor plan

LEGENDS

1. LIFT LOBBY
2. LIFT LOBBY FOR SERVANTS
3. FIREMAN LIFT LOBBY
4. TYPICAL FLAT
5. ENTRY
6. FIRE STAIRCASE
7. STAIRCASE
8. GARBAGE CHUTE

Cost:
Rs 188 crores

Area of the plot:
(5.695 Acre)

Total Built Up Area:
40,464 Sqm

Number of Floors:
Stilt + 13 Floors

Design Philosophy

The proposed building complex has been designed to be in harmony with the existing Narmada and Kaveri Blocks. The Architectural elements incorporated in the design are similar to the existing MS flats.



REDEVELOPMENT OF NORTH AND SOUTH AVENUE HOUSING
NEW DELHI

Design Philosophy

The duplex unit is designed with the balance of Lutyen's character and modern architecture. The redevelopment is kept low rise due to close proximity with Rashtrapati Bhawan. The building materials and construction technologies are energy efficient. In Phase - I, 36 nos. new flats are constructed in North Avenue after demolition of 64 flats, 47 staff quarters, 9 garages and 3 shops.

Cost:
Rs 92.5 crores (First Phase)

Area of the plot:
21 Acres

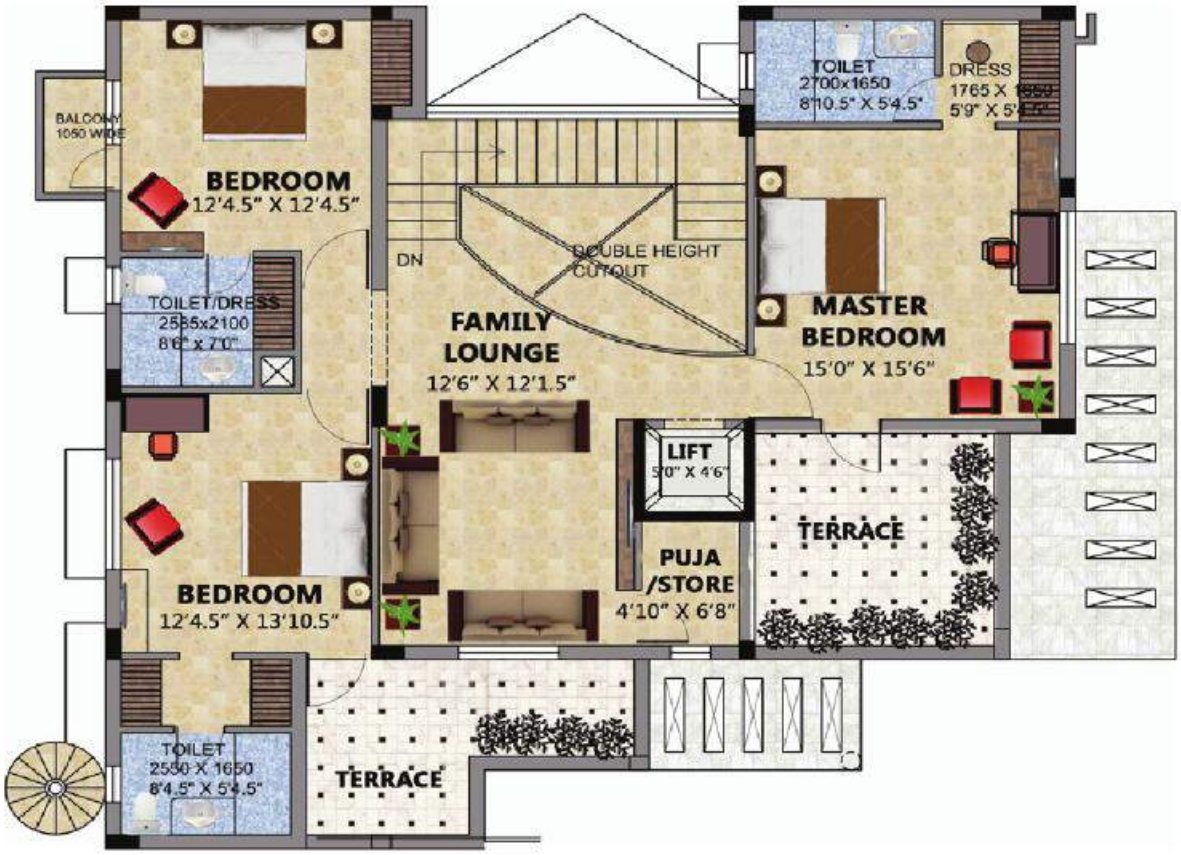
Total Built Up Area:
15,120 Sqm (First Phase)

Number of Floors:
B + G + 1 Floor





Ground Floor Plan



First Floor Plan

NATIONAL SECURITY GUARD (NSG)
SAMALKHA, NEW DELHI



Cost:
Rs 39.41 crores

Area of the plot:
(98033.24 Sqm)

Total Built Up Area:
12314 Sqm

Number of Floors:
Ground + 3 Floors

Design Philosophy

It is a G+3 storey structure with no basement. The structure has been designed as a combination of four separate building namely 2 nos. barracks, one each quarter guard, store block & admin block into one building, where each has a separate entry in order to save space on ground.

All three blocks are completely segregated by providing separate lifts for each block.



Stone Jaali and Creepers on Terrace



Ground floor plan



Perspective View

Direct view is blocked from the terraces of the barracks by providing stone jali covered with creepers. Fourth floor is completely used for barracks. Lifts and stairs of central block restricted upto third floor only.

NATIONAL INSTITUTE OF DEFENCE ESTATES AND MANAGEMENT
NEW DELHI



Perspective View

Design Philosophy

To create a state of Art and Land Mark Building for NIDEM and to achieve at least three star rated Green Building with the use of Solar passive Architectural design and Harnessing the potential of Renewable Energy with a "Innovative" approach.

Cost:
Rs 44.48 Crore

Area of the plot:
4.0 Acres

Total Built Up Area:
6855.9 Sqm

Number of Floors:
Ground + 2 Floors



Perspective View

VIEWER'S GALLERY AT JOINT CHECK POST, ATTARI, AMRITSAR



Site Photograph

Design Philosophy

Project is located at joint check post, Attari (international border between India and Pakistan) Amritsar, Punjab. This check post also serves as a transit terminal between both the countries. Attari lies on the historic Grand Trunk Road which passes through both the countries, India and Pakistan. The border is located 32 kilo metres from Amritsar. the elaborate Attari border ceremony takes place daily at this joint check post, before sunset which is witnessed by thousands of people.

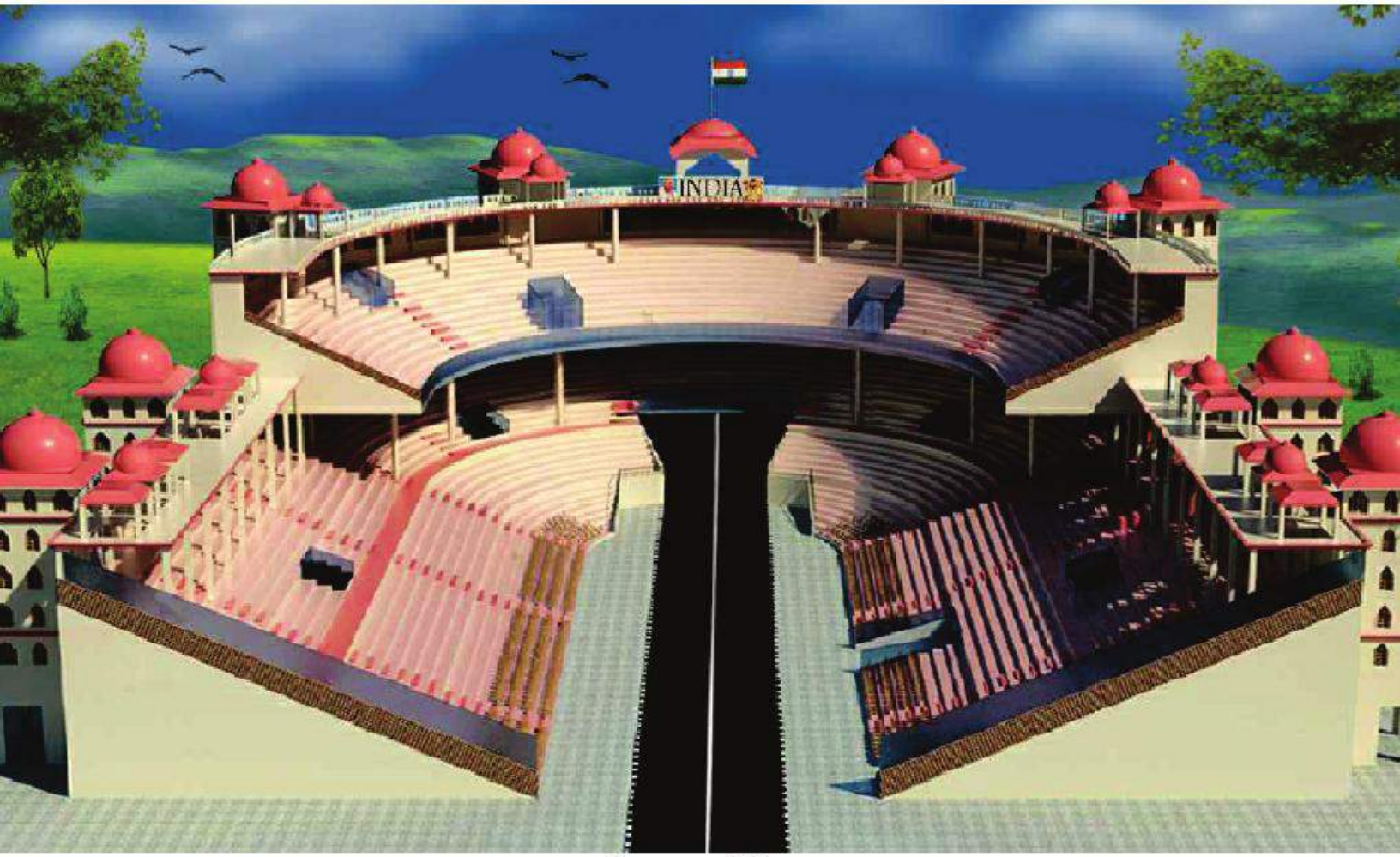
Cost:
Rs 23.98 crores

Area of the plot:
31,000 Sqm.

Total Built Up Area:
Covered Area 8515.12 Sqm,
Gallery Area 7246.56 Sqm

Number of Floors:
Ground + 6 Floors

The proposal for the Viewer's Gallery at BSF joint check post at Attari was conceptualised and finalised by Central Public Works Department in consultation and close coordination with the Ministry of Home Affairs and the Border Security Force. This project has been planned and designed keeping in mind its National importance and National pride. The

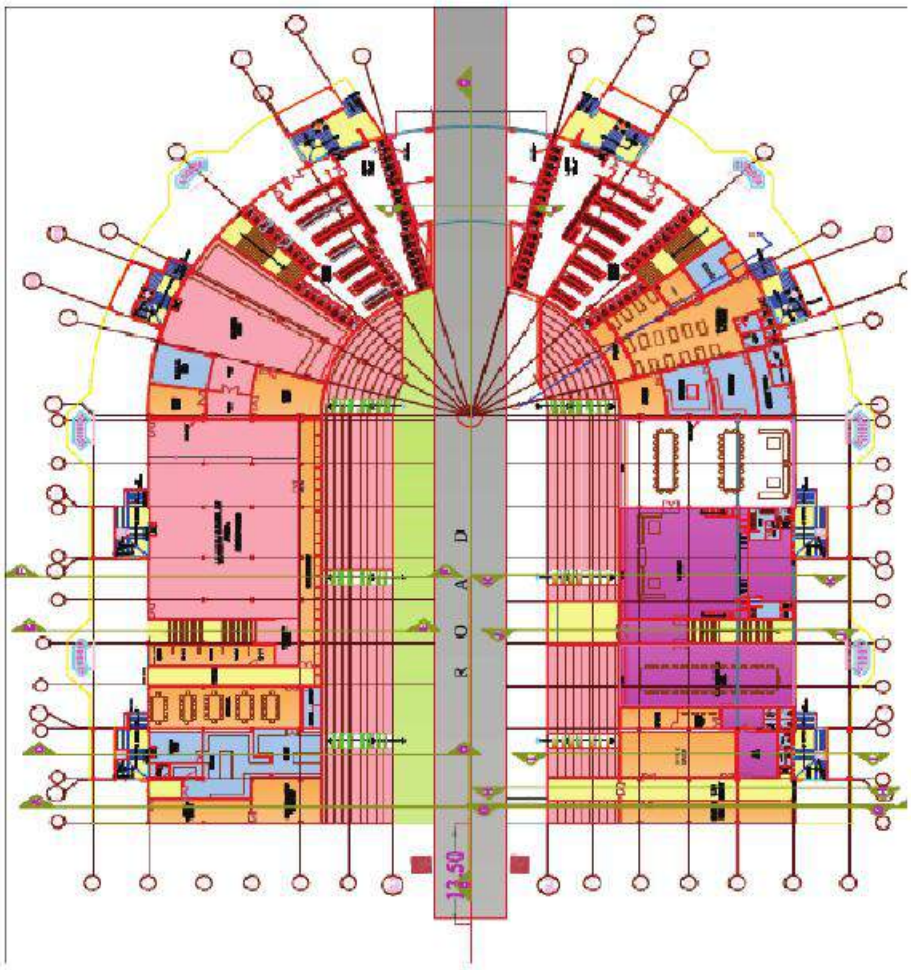


Conceptual View

traditional local architecture of Punjab has been followed in this U shaped gallery.

The design elements like juxta position of two dome shaped Chhatari and flat roof chhatari of varying scale and columns with trefoil arches and stone jaali to give a monumental character. Sada-e-Sarhad bus connecting Delhi(India) with Lahore(Pakistan) can pass through the viewers gallery. The linking node between two countries is visible from both side. Viewer's Gallery accommodates seating capacity of 13525 persons at a time, Museum, Exhibition Space Cum Souvenir Shop, Medical Inspection Room, Lounge, Conference Hall with store and observation room, VIP waiting area, Barracks and Public toilets.

Evacuation of such big number of public is also well thought of with provision of 08 Nos. staircases, 08 Nos. aisles in the Gallery and 04 Nos. of lifts as future provision.



Ground Floor Plan



Site Photograph

HOLIDAY HOME, AMRITSAR



Perspective View

Design Philosophy

Amritsar is an important tourist destination famous for Golden Temple, Jallianwala Bagh and Attari Border neighboring Pakistan.

The Holiday home is coming up in the heart of the city on G T Road on Hindustan Vegetables Oils Corporation Ltd land. It has 25 double bed rooms accommodating three different categories of units, single rooms and two categories of double rooms with attached toilets.

Cost:
Rs 12.5 crores

Area of the plot:
1.09 Acres (4420 sqm.)

Total Built Up Area:
4154 Sqm

Number of Floors:
B + Ground + 4 Floors

The other facilities are basement car parking for 34 cars & dining hall for 24 guests at a time. The building has Solar Passive design features and takes care of local wind direction from north-east side in summers and north-west side in winters.



Ground Floor Plan



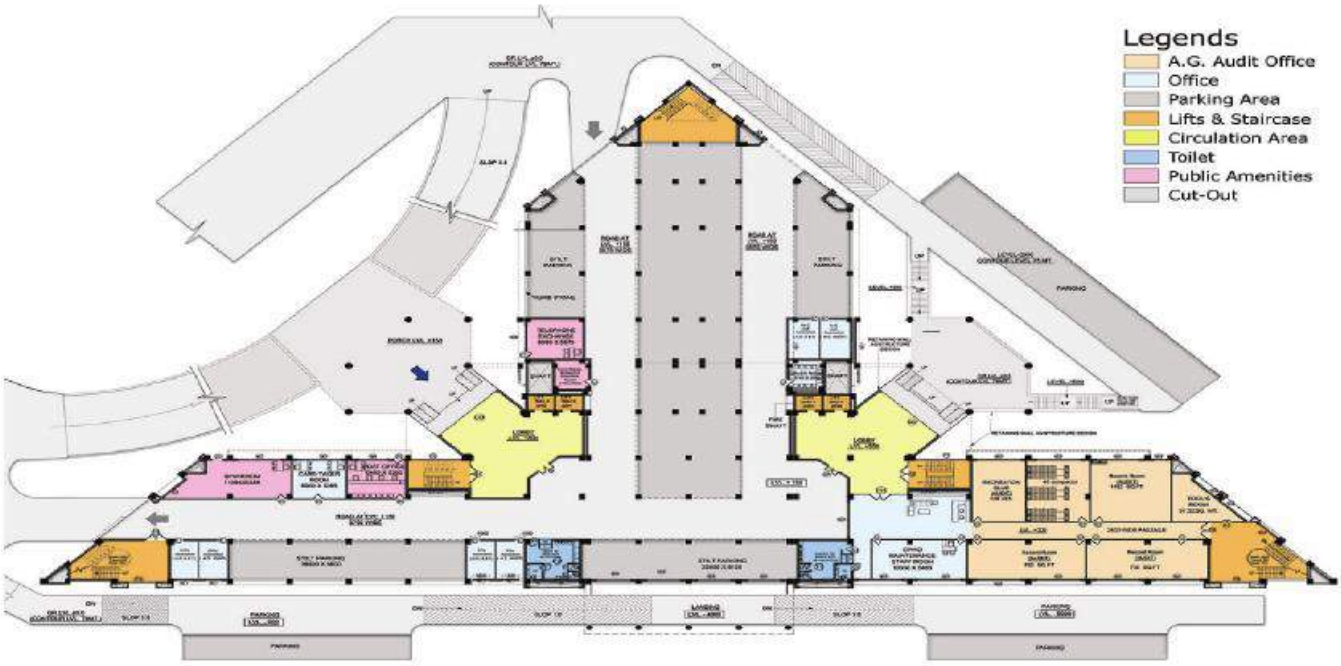
First Floor Plan

ACCOUNTANTS GENERAL OFFICE BUILDING
DEHRADUN



Design Philosophy

Utilizing the shape and topography of the site, a triangular form of building was evolved. The building is designed with bio-climatic features in order to cut the summer sun and allowing winter sun light within the building. The building is designed barrier free and is universally accessible.



Ground Floor Plan



Site Photograph



First Floor Plan

State of art technology has been used for firefighting along with three separate fire exit staircase for each wing. The building incorporates green features such as solar panels at roof top, energy efficient LED light fixtures, low heat transmitting glass, optimizing daylight window and perforated interlocking paver blocks.

Cost:
Rs 98.0 Crore

Area of the plot:
29269.88 Sqm

Total Built Up Area:
21740.56 Sqm

NATIONAL INSTITUTE FOR THE EMPOWERMENT OF PERSONS WITH DISABILITIES, DEHRADUN





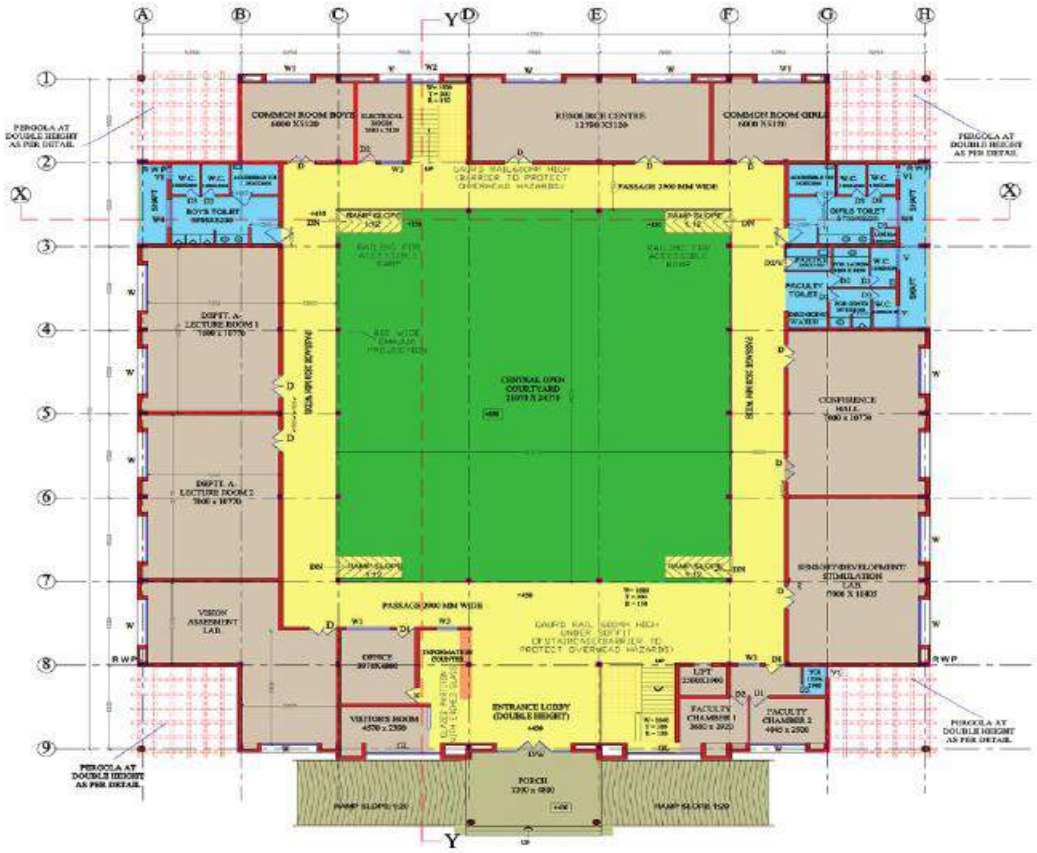
Design Philosophy

The building is designed to cater the academic and administrative requirements of faculty members of NIVH. This two storied building is designed with a central open courtyard having single loaded 2.9 m wide corridor all around to facilitate simulation exercise in courtyard and corridor. Provision of universal accessibility given by using two level handrail, tactile flooring, brail script and lift.

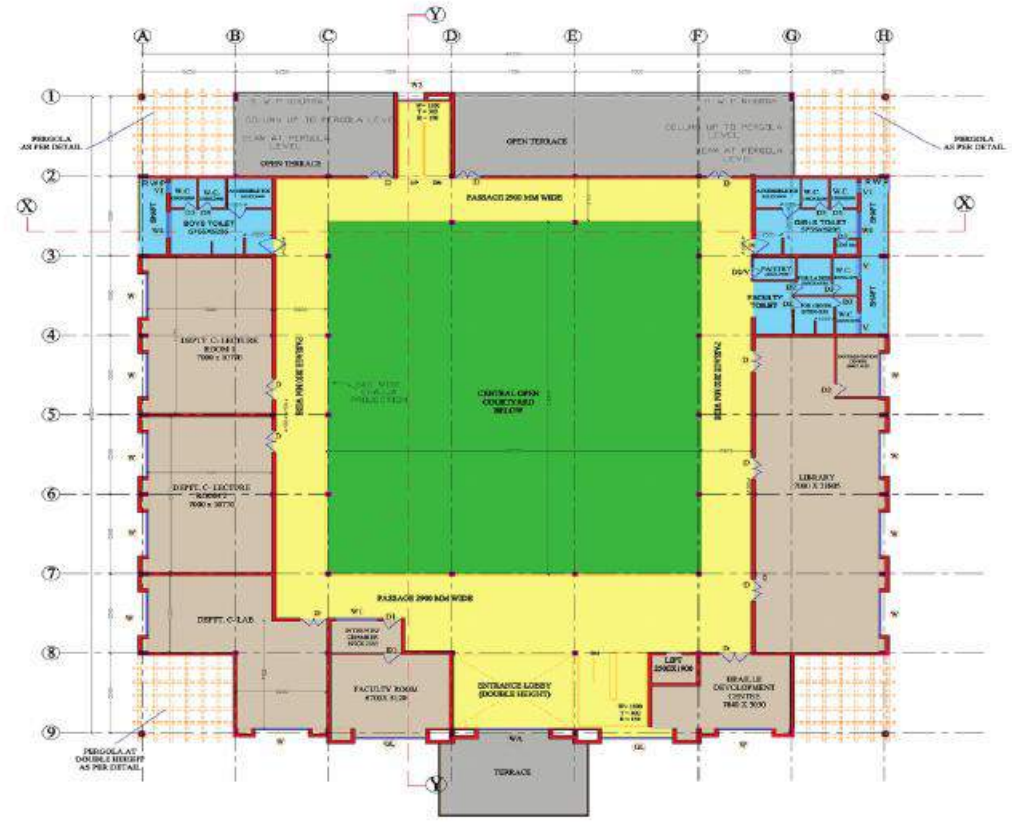
Cost:
Rs 8.25 Crore

Total Built Up Area:
2295.85 Sqm

Number of Floors:
Ground + 1 Floor



Ground Floor Plan



First Floor Plan

AMBEDKAR BHAWAN, BBAU
LUCKNOW



Design Philosophy

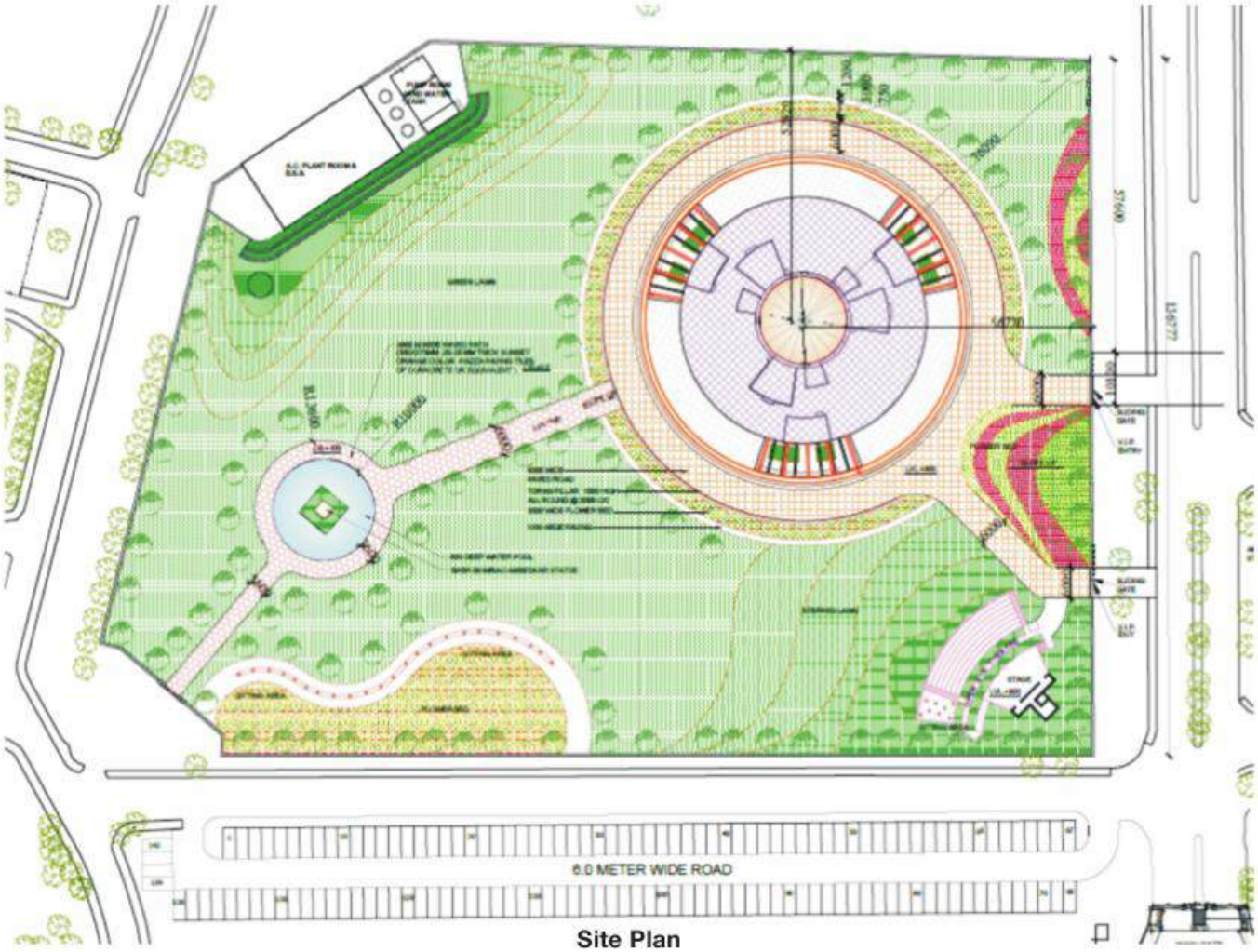
The building is designed as G+4 structure with Circular form which gives more interactive space to students. Designed as the sculpture form in the campus to have a impactful and iconic structure. Sustainability parameters has been followed in the design. Maximum exposure to the daylight has been provided to the occupants of the building.

Cost:
Rs 38.88 crores

Area of the plot:
6.07 Acres (24556.70 Sqm)

Total Built Up Area:
6961.60 Sqm

Number of Floors:
Ground + 4 Floors



Site Plan



ADMINISTRATIVE BLOCK FOR INDIAN INSTITUTE OF MAIZE RESEARCH
LADHOWAL, LUDHIANA



Design Philosophy

In proposed Administrative block for IIMR the concept of courtyard planning has been adopted to ensure all rooms get an adequate level of lighting and ventilation throughout the year.

Big courtyards have been provided to create ambient atmosphere inside building and to achieve better microclimatic atmosphere for healthier work environment.

Building infill walls are made with AAC block with infill insulation of glass wool to conform better comfort level inside building block thereby reducing demand of HVAC loads.

Cost:
Rs 32 crores

Area of the plot:
187.44 Acres

Total Built Up Area:
8082.51 Sqm

Number of Floors:
Ground + 2 Floors

Direct East sun and west sun has been blocked by its orientation and shading devices has been wisely used in the building.

All Buildings have solar passive design feature to utilize Sun for Visual & Thermal Comfort along with aim to reduce active loads from buildings.



All windows provided are uPVC double glazed windows with silicon fill to avoid any heat loss or gain from environment with possible electro chromic glass on outer side.

Building is modernist in looks where as external concept has been derived to use Glass reinforced cement tiles to give a look of Dholpur & Red Sandstone.

The Building is basically a laboratory building therefore big halls without columns are provided with all service connections like Gas connection & Water supply connection through ducts.

Planning for all water & other services lines have been done in the floor trenches since the labs are highly technical.

Floor height of the building has been kept 4050mm to accommodate VRV system, ducts, false ceilings and big machineries in the lab.

OFFICE & RESIDENTIAL COMPLEX FOR CUSTOMS & CENTRAL GST
JALANDHAR



Design Philosophy

Office building is centrally air conditioned with state of the art facilities. The Planning & design of buildings is as per the PUDA Building Byelaws & the Punjab Energy Conservation Building Code. Barrier free Accessibility design for the differently able. Design provides natural daylight in all areas to reduce conventional lighting load. Building has been designed considering Solar passive design by use of RCC fins as shading devices, low transmission glass, reflective roofing, Landscaping & plantation of native & drought resistant trees.

Cost:
Rs 67 crores

Area of the plot:
6 Acres (24281.16 Sqm)

Total Built Up Area:
17961 Sqm

Number of Floors:
B + Ground + 4 Floors



Floor Plan



Site Plan

VIDESH BHAWAN
NEW TOWN RAJARHAT, KOLKATA



Cost:
Rs 81.93 crores

Area of the plot:
1 Acres (4046.8 Sqm)

Total Built Up Area:
8487 Sqm

Number of Floors:
B + Ground + 2 Floors

Design Philosophy

The Design has been conceptualized as State of Art Building for the ministry of External Affairs. The façade of the proposed building has contemporary surface treatment suitable for hot & humid climatic conditions. Curtain glazing with DGU and CNC processed Zinc alloy inter locking perforated panels as sun-control device along with tri-lingual in scripts to make it easily identifiable in the cityscape. The design of the building has been conceived after a detailed analysis of the requirements framed by the client department. Regional and local context, climatic data analysis, SWOT analysis, Site analysis and green building concept are the parameters used in deriving the design.

The building falls in the Business category, the footfall in the building premises is calculated to be



RESIDENTIAL BUILDING
FLOOR AREA = 306 SQ.M.



OFFICE BUILDING
FLOOR AREA = 755 SQ.M.



RESIDENTIAL BUILDING
FLOOR AREA = 240 SQ.M.



OFFICE BUILDING
FLOOR AREA = 755 SQ.M.

of huge capacity. The design is modular and public circulation oriented. Apart from this the design has undergone a strong critical review to make it much more efficient in terms of Universal Accessibility, Energy efficiency, Water Efficiency, Intelligent Building Management System, Easement of services for future maintenance.

GEOLOGICAL SURVEY OF INDIA
DHARITRI, KOLKATA



Design Philosophy

This State of Art Building having Green Building features has been designed for the Ministry of Mines. The building façade has surface treatment to suit tropical climatic condition. The curtain glazing with DGU, horizontal shading devices, aluminum composite panel, double height terrace gardens have been placed on the outer periphery of the building which have been conceived to give a spiral green patch effect all around the building facade throughout the vertical visualization of the building.

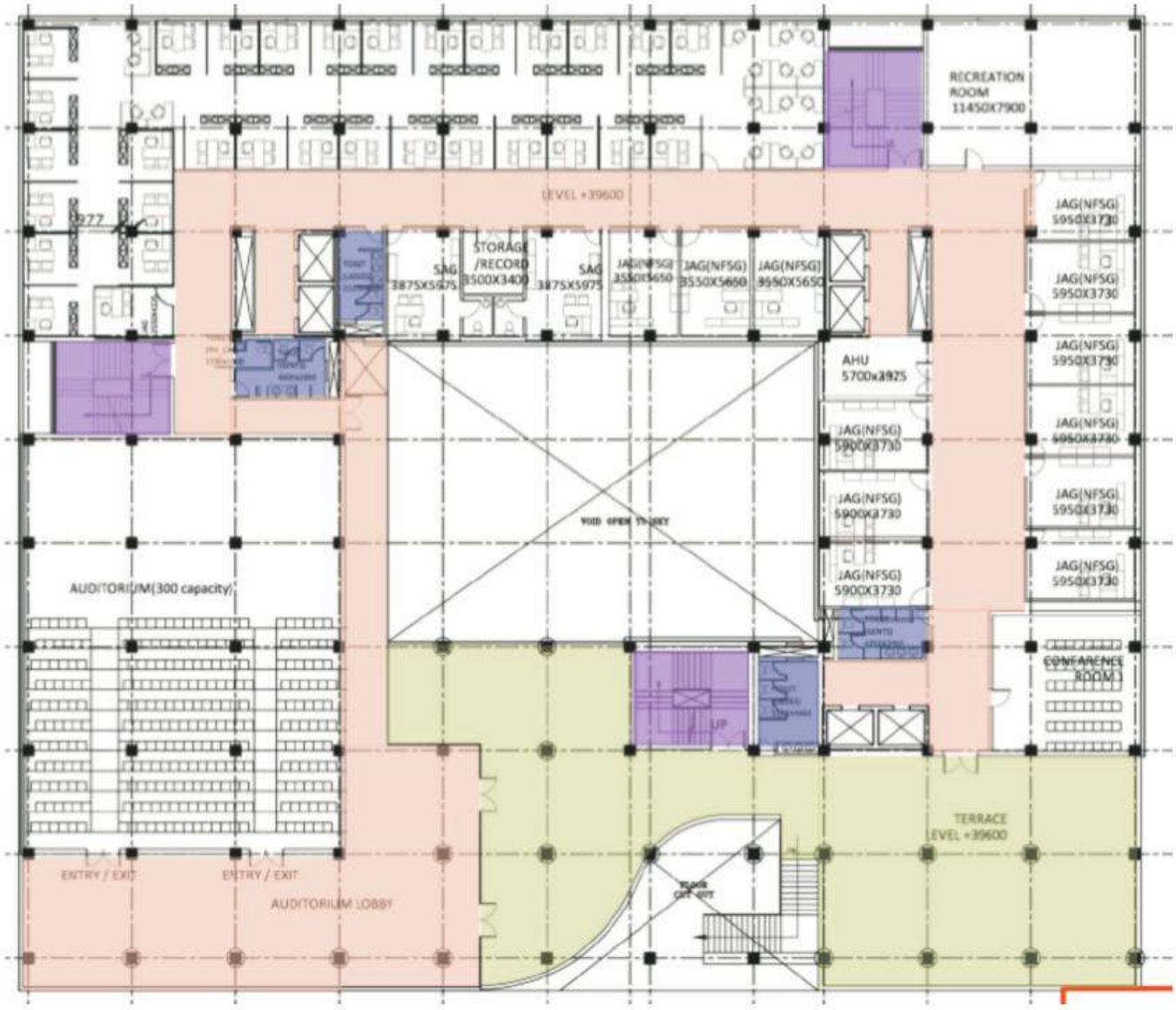
Cost:
Rs 231.9 crores

Area of the plot:
5 Acres (20250 Sqm)

Total Built Up Area:
26775.75 Sqm

Number of Floors:
B + Ground + 10 Floors

All vertical service shafts & chamber of higher officials have been



Floor Plan

placed around the central courtyard and the outer grids have been conceived as open office system for proper visual monitoring in the office hierarchy. Apart from this, the design has undergone a strong critical review to make it much efficient in terms of Universal Accessibility, Energy efficiency, Water efficiency, Intelligent Building Management System and Easement of services for future maintenance.

CORPORATE BHAWAN
RAJARHAT, KOLKATA



Design Philosophy

The Design has been conceptualized following the legacy of the Ministry of Corporate affairs. The façade of the proposed building is a juxtaposition of both contemporary and traditional aspects of surface treatment in tropical climatic condition of National and Regional context. It is conceived as an amalgamation of extensive use of Yellow and Red Dholpur Stone, Spider fin glazing, recessed curtain glazing with DGU, aluminum composite panel, space frames glass canopy.

Cost:
Rs 132.65 crores

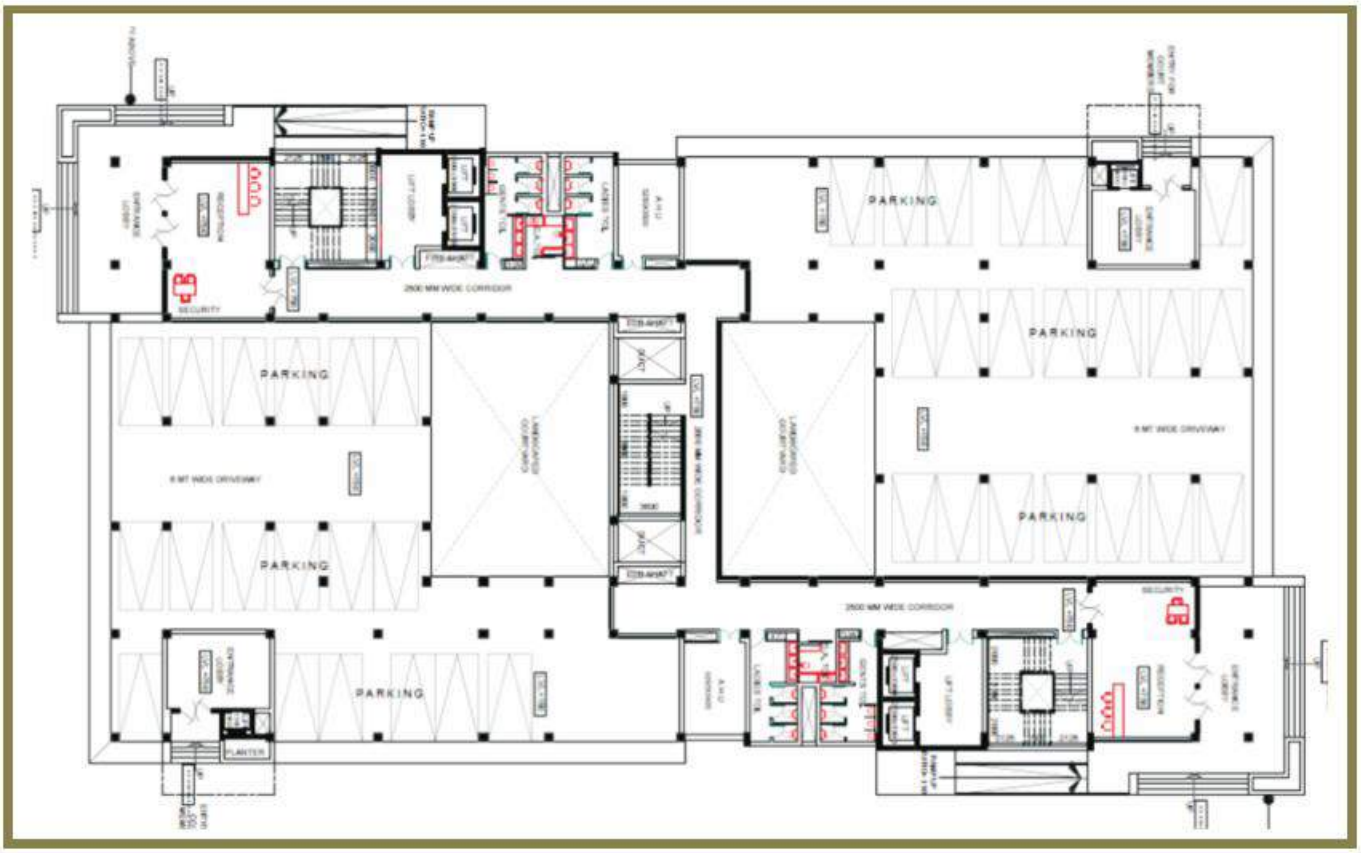
Area of the plot:
2 Acres (8094.38 Sqm)

Total Built Up Area:
13239.13 Sqm

Number of Floors:
Ground + 7 Floors

Efficient minimalistic horizontal and vertical circulation for better communication between public and private spaces have been considered inside and outside of the building. Efficient interrelation between interlinked functional spaces in intra and inter departments provided on different floors along with open office concept. The building also has features of Universal Accessibility, Energy efficiency, Water Efficiency, Intelligent Building Management System, Easement of services for future maintenance.


CORPORATE BHAWAN


PARKING
PARKING
PARKING
PARKING
PARKING
PARKING
6 MT WIDE DRIVEWAY
6 MT WIDE DRIVEWAY
2500 MM WIDE CORRIDOR
2500 MM WIDE CORRIDOR
SECURITY
PLANTER

Floor Plan

ANTHROPOLOGICAL SURVEY OF INDIA
SALT LAKE, KOLKATA



Design Philosophy

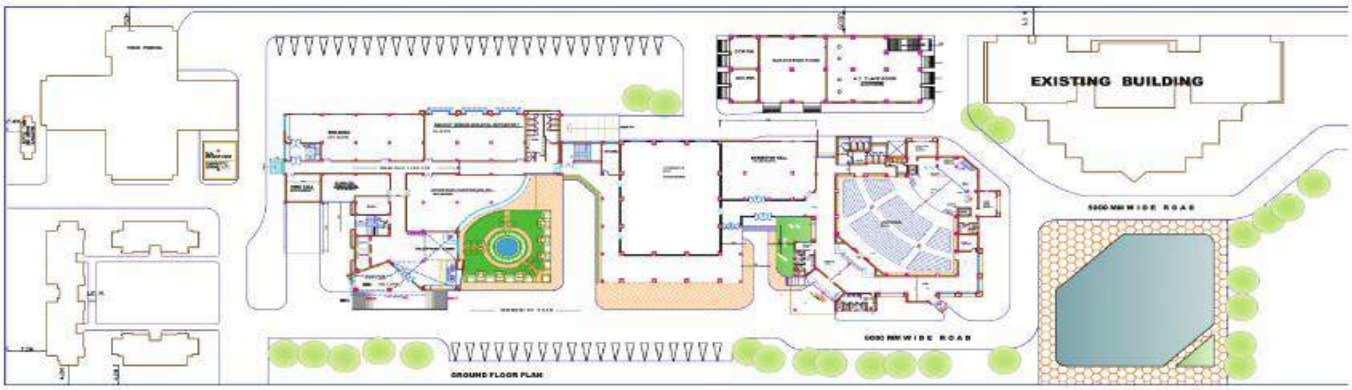
This B+G+8 storied building has been designed as a barrier free building with entrance ramps, lifts, Green building norms like usage of low-e value glass façade, recessed window, usage of energy efficient fittings, water saving toilet fixtures etc.

To make the external features aesthetically expressive and to match the existing surroundings of the City with the millennium tower at the back-drop, structural glazing, ACP external cladding, modular SS railing, and impressive color scheme have been provided.

Cost:
Rs 60 Crores

Area of the plot:
20000 Sqm

Total Built Up Area:
13778 Sqm



Layout Plan

SCIENCE PARK, I.I.T. KHARAGPUR
NEW TOWN, KOLKATA



Design Philosophy

An Integrated Research cum Administrative cum Guest House with an adjacent 500 capacity auditorium designed around a central courtyard. B+G+9 Storied Complex has been designed with efficient orientation using energy efficient materials, barrier free design considerations, water saving and recycling systems and waste recycling system.t Building Management System, Easement of services for future maintenance.

Cost:
Rs 100 Crore

Area of the plot:
40500 Sqm

Total Built Up Area:
80950 Sqm

Number of Floors:



Layout Plan

FOREIGN VISITORS ACCOMMODATION
IIT KHARAGPUR



Perspective View

Cost:
Rs 23.0 Crore

Area of the plot:
Part of Big Campus of IIT

Total Built Up Area:
6737 Sqm

Number of Floors:
Ground + 4 Floors

Design Philosophy

A premier education and research institute like IIT Kharagpur is ameeting place for great minds to share knowledge and learn through interaction. In Keeping that in mind the foreign visitor's accommodation at IIT Kharagpur is designed not only as a place for temporary stay but also as a place for interaction among scholars.

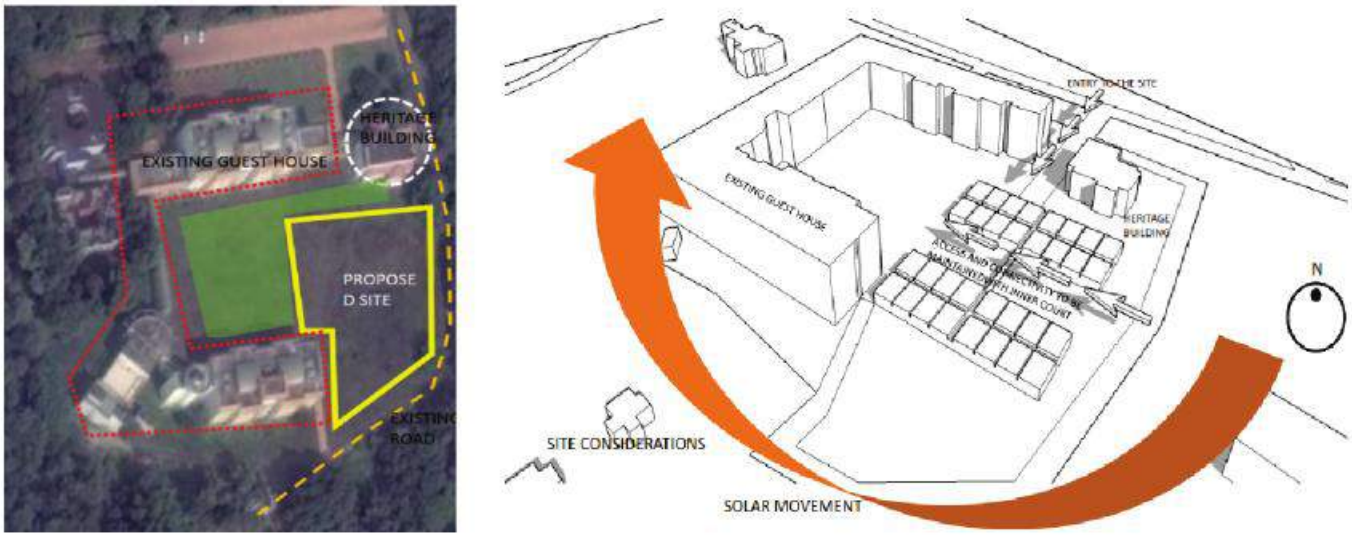
Considering the bioclimatic design principles the building is designed as two parallel wings oriented along east west axis to minimize solar insolation. To maintain privacy the wings are split apart by fifteen meters keeping a green zone in between. A series of terrace takes this green to the topmost floor. Long bridges connect two wings at each floor creating an Inward green zone for casual interaction.



Conceptual View

Each of these terraces are covered with extensive and intensive green roof system which will help to reduce rainwater runoff and heat island effect. Moreover this entire structure is covered with a space frame to reduce solar insolation and thus keeping the space cooler. Meeting the basic requirements the building contains one hundred guest rooms, library, laundry, gymnasium, reception, office, waiting lounge, bicycle parking etc. within floor area of total 6737 sqm.

The facade integrates two wings visually and works as a ventilated double skin system. The layered facade is developed by placing a diaphragm wall 750mm away from the external wall of the building. This double wall system will keep the inner wall shaded and the gap between these two layers will allow wind flow to reduce heat load. Considering the solar orientation the openings on south facade are designed as vertical slits while the north facade has bigger rectangular openings.



Design Development

FILM AND TELEVISION INSTITUTE
ITANAGAR, ARUNACHAL PRADESH



Design Philosophy

This is a vast Green Undulated Hilly Campus with plenty of natural vegetations. The campus has 19 category of buildings all designed with harmonious aesthetics. The Campus has different buildings located on natural terrain as much as possible to ensure minimum cutting and filling. Logical segregation has been ensured between the areas of Academic Building, Administrative Building, Boys Hostel, Girls Hostel and Residential Accommodations.

Cost:
Rs 131.7 Crore

Area of the plot:
52.11 Acres (210910 Sqm)

Total Built Up Area:
18617 Sqm

Number of Floors:
Ground + 1/2/3 Floors

A central water body has been proposed at the lower area of the campus as a catchment area of rain water to spread cool moist air in summer, to supply water for plantation and to act as a landscape feature of the campus.

The water body and the rear part of the campus at higher altitude has been kept reserved for future expansion and outdoor film shooting purpose.



PROPOSED LAYOUT PLAN,
FTI ITANAGAR



The use of local materials like bamboo, wood, thatch etc, structural forms like construction with sloped roof on stilt etc have been symbolised with contemporary material and form of construction. At the same time most effective space planning in modernised energy efficient sustainable building has been ensured.



This building has got 10 class rooms of 30 capacities each with high quality audio and visual equipments. As per local architectural characters, a low-rise colourful single storied building with sloped roof, ornamental dormer, ornamental roof bracket, decorative canopy with dormer have been provided. All the acoustical and technical requirements for class rooms like cavity wall, acoustic false ceiling, wall panelling and wooden flooring have been considered. Commonly used features of Accessible India Campaign have been incorporated.



This is a three storied building with 60 students capacity in double seated rooms. Reasonably spacious rooms with attached balcony, dining hall, recreation room and other amenities have been proposed. Local ornamental features like sloped roof, dormer, ornamental roof bracket etc. have been proposed for this building.



This building has 2 Nos class room theatres with 104 capacity and 1 performance lab with 79 capacity. All the CRTs are similar to miniature type auditorium with high quality audio and visual equipments. It is a colourful bold building. As per local architectural characters, sloped roof, ornamental dormer, ornamental roof bracket, decorative semi circular canopy with dormer, vertical bamboo bracing effect have been proposed.



Low-rise colourful building with sloped roof, ornamental dormer, ornamental horizontal and vertical bands, ornamental roof bracket, decorative fascia drop at roof level, decorative canopy with dormer have been provided. This is a building with less dominance located in academic enclosures to depict a cohesive teacher & student bondage. Commonly used features of Accessible India Campaign have been incorporated.

INCOME TAX OFFICE
BILASPUR



Design Philosophy

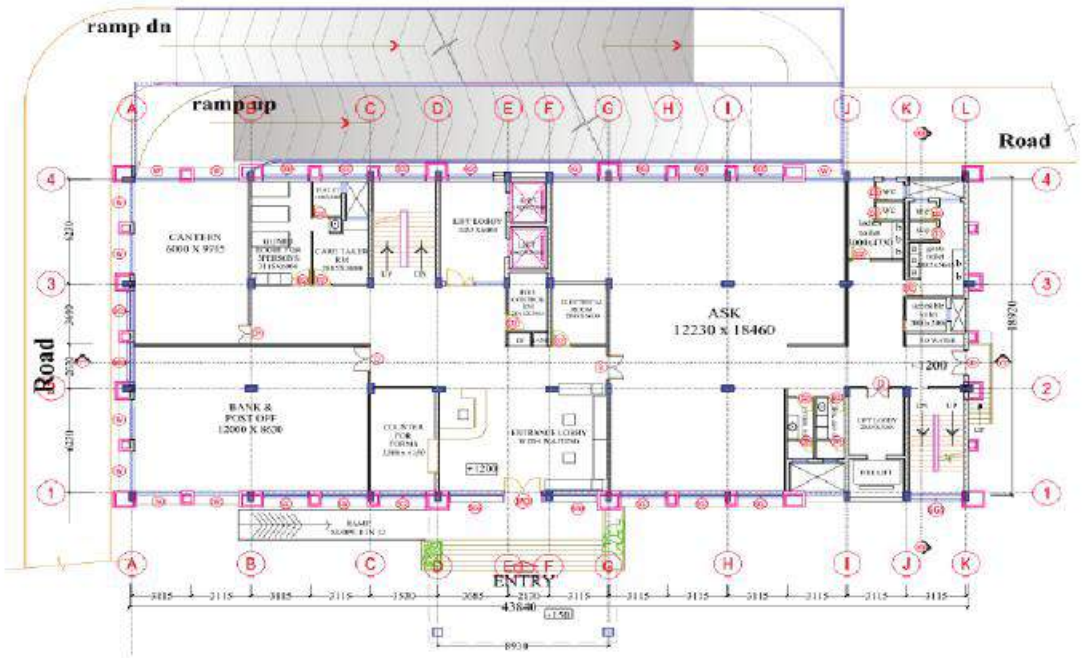
The Income Tax office Building is situated in Tifra, Bilaspur area. Bilaspur has tropical Hot and dry climate, so all windows provided are sunken windows with DGU glass for better energy efficiency and thermal insulation. The elevation is a perfect blend of contemporary and classical elements such as provisions of arch, structural glazing, external cornices etc.

Cost:
Rs 68 Crore

Area of the plot:
13071.34 Sqm (3.23 Acre)

Total Built Up Area:
7975.89 Sqm

Number of Floors:
8 (G+7 Floors) & 1 Basement



Ground Floor



Site Plan Of Income Tax Office, Bilaspur

GPOA AT BILASPUR
CHATTISGARH



Perspective View

Design Philosophy

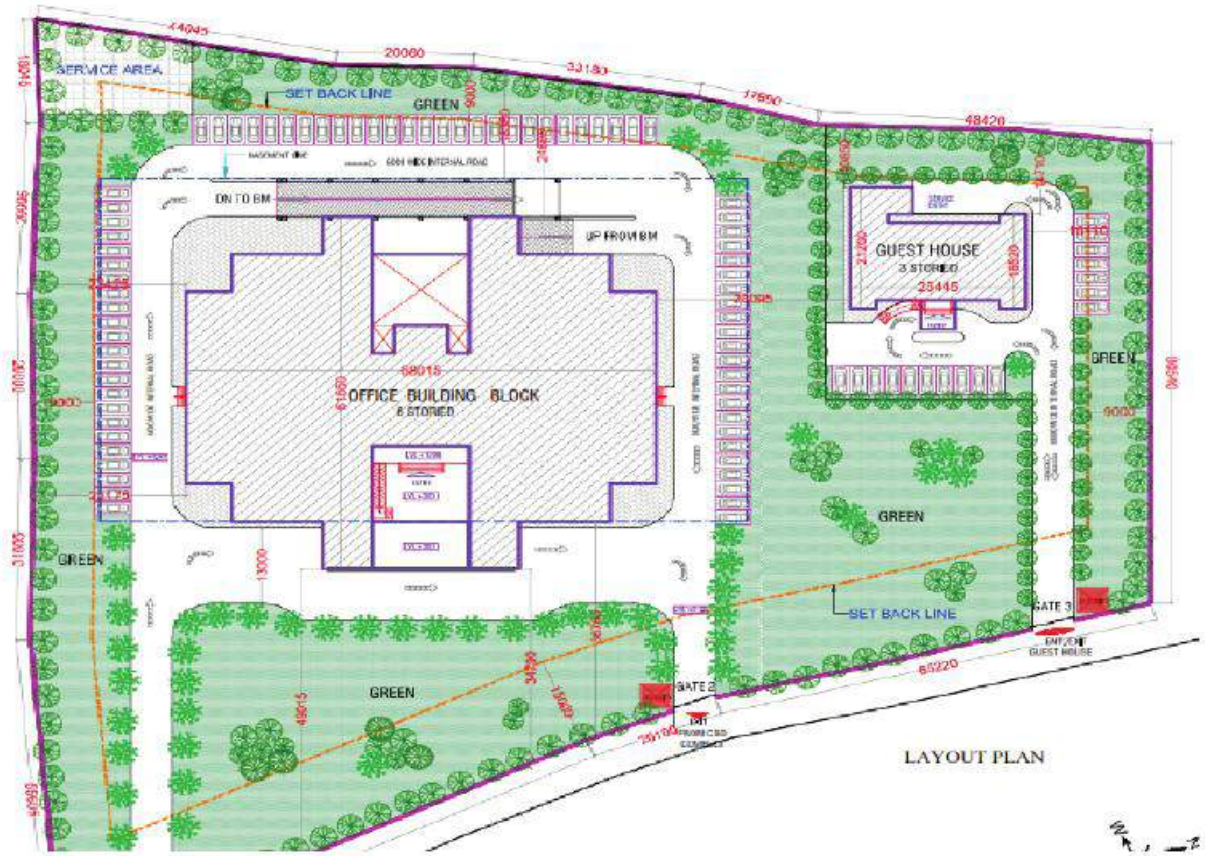
THE GPOA site is situated in Bilaspur. There are two blocks proposed in the site. One for office building and another for guest house. Building is designed for better use of natural light and ventilation to make it energy efficient. Guest house (area 1178sqm) has been designed as a 3 storied (G+2) RCC structure. Bilaspur has tropical Hot and dry climate, so all windows provided are box windows with DGU glass for better Energy efficiency and Thermal insulation.

Cost:
Rs 105 Crore

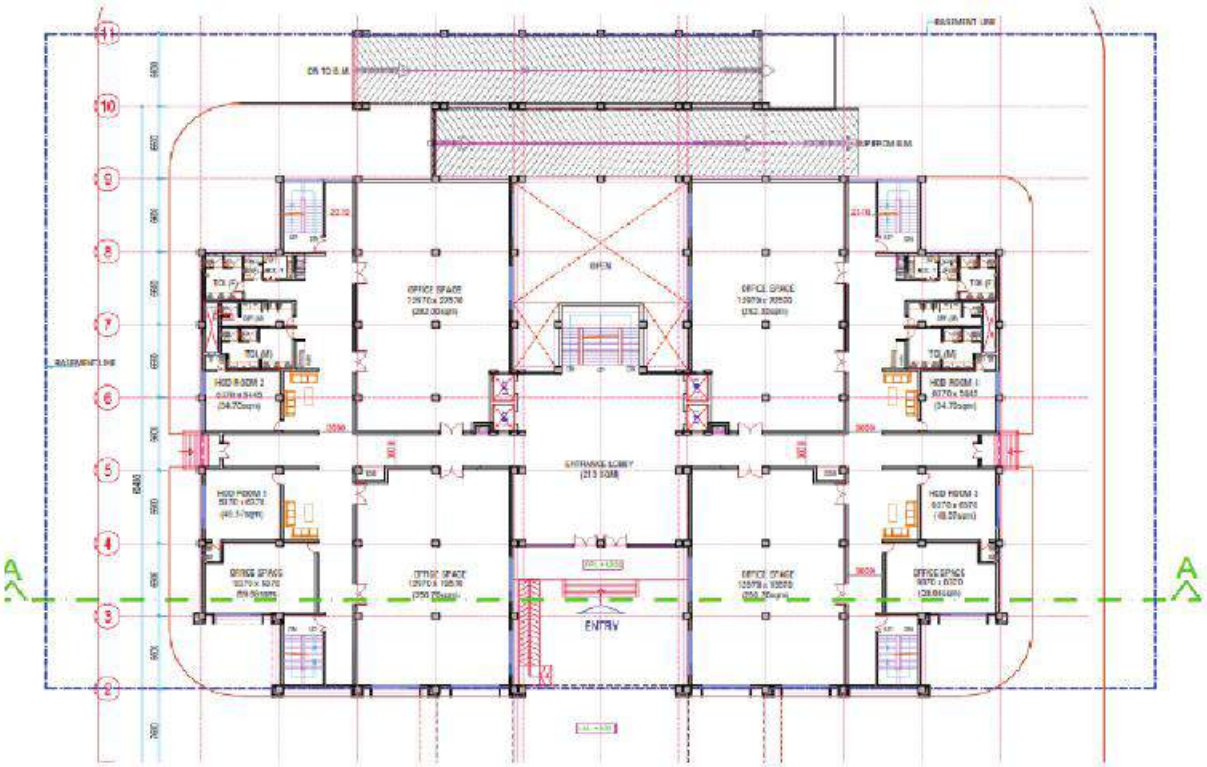
Area of the plot:
18928.00 Sqm

Total Built Up Area:
23464.00 Sqm

Number of Floors:
B + Ground + 5 Floors



Layout Plan



Ground Floor Plan

GPOA AT NAYA RAIPUR
CHATTISGARH



Perspective view

Design Philosophy

The GPOA building of Raipur is situated in sector 24 Naya Raipur area. The building is designed as a 6 storied (G+5) structure with one Basement (area 3200 sqm.) H – shape has been adopted for better use of natural light and ventilation to make it energy efficient. All floors are well lighted and ventilated.

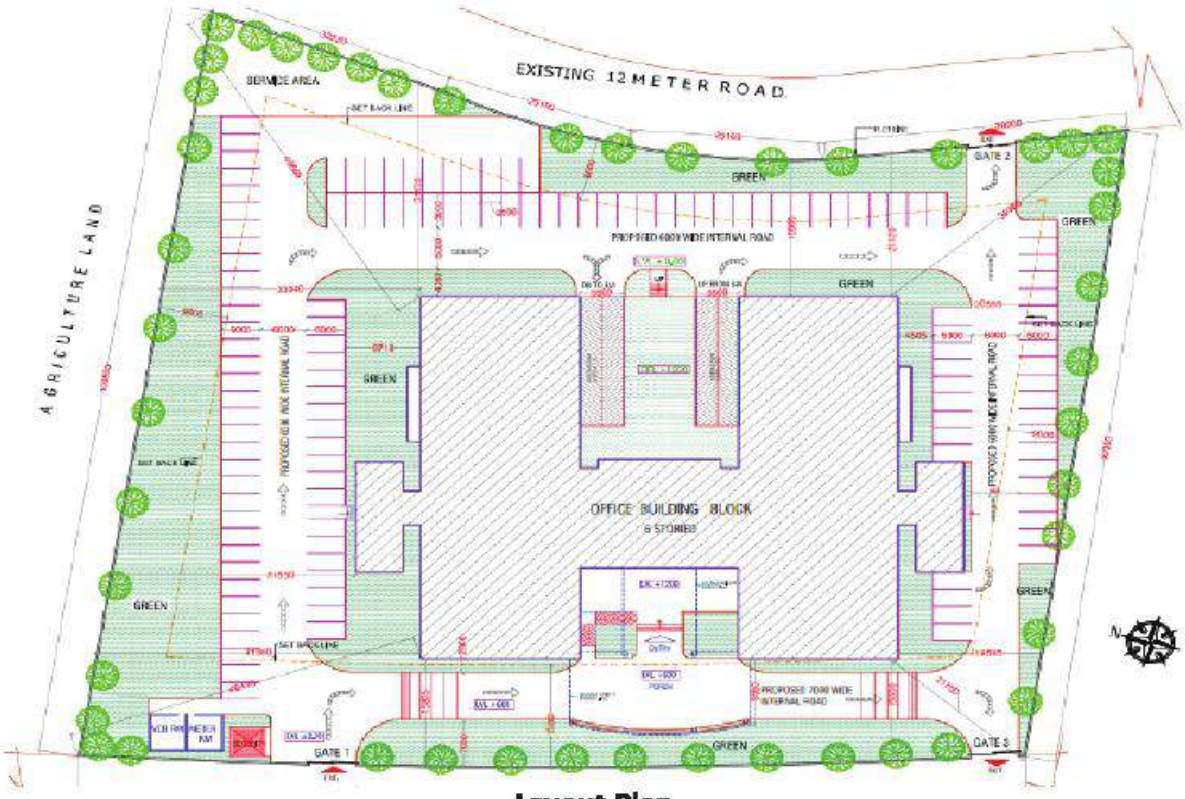
Being in tropical wet and dry climate, all windows provided are sunken with DGU glass for improved energy efficiency and thermal insulation. VRV system is provided for air conditioning in all floors. Fire fighting, sprinkler system, wet Riser and fire escape staircase has been provided. Space frame provided at the top of the building to tie-up the building blocks.

Cost:
Rs 72.27 crores

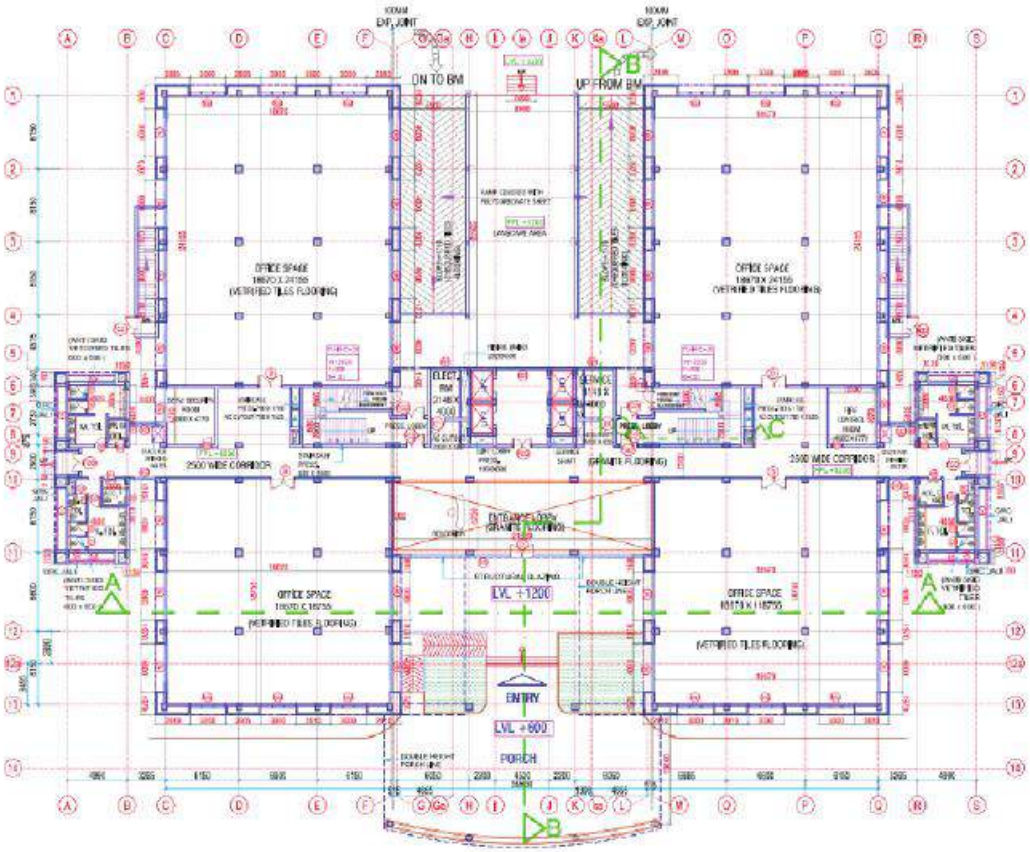
Area of the plot:
(11476 Sqm)

Total Built Up Area:
14649 Sqm

Number of Floors:
B + Ground + 5 Floors



Layout Plan



Ground Floor Plan

GPRA AT NAYA RAIPUR
CHATTISGARH



Site Layout View - Plot 'A' (Ty-II,Ty-III and Ty-IV)

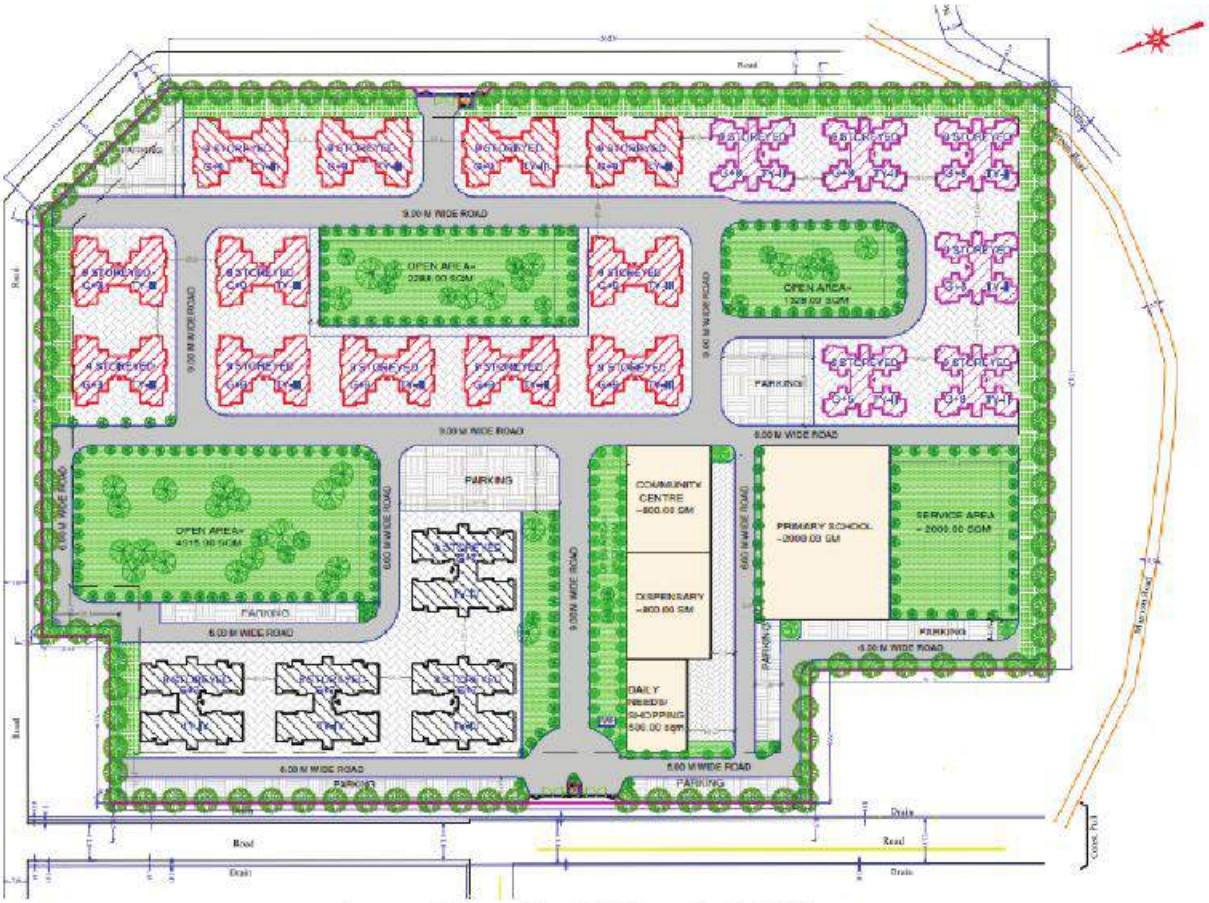
Design Philosophy

On plot 'A' site Type – II, III, and IV quarters have been proposed with community facilities Shopping, Nursery School, Dispensary and community center etc. On plot 'B' site Type – V, and VI quarters have been proposed with Guest House. Each type quarters designed in a different pocket of clusters surrounded by open spaces created for recreation and social interaction. Blocks are oriented in North – South direction for better orientation to have the sun in winters and avoid the same in summers.

Cost:
Rs 308.86 Crores

Area of the plot:
Plot 'A' = 59837 Sq m
Plot 'B' = 18407 Sq m

Total Built Up Area:
Plot 'A' = 49518.00 sqm
(TYPE-II, TY-III, TY-IV)
Plot 'B' = 13085.74 sqm
(TYPE-V and TY-VI)



Layout Plan - Plot 'A' (Type-II, III & IV)



Site View - Plot 'B' (Type-V & VI)

OFFICE BUILDING FOR AUDITOR GENERAL
RAIPUR



Design Philosophy

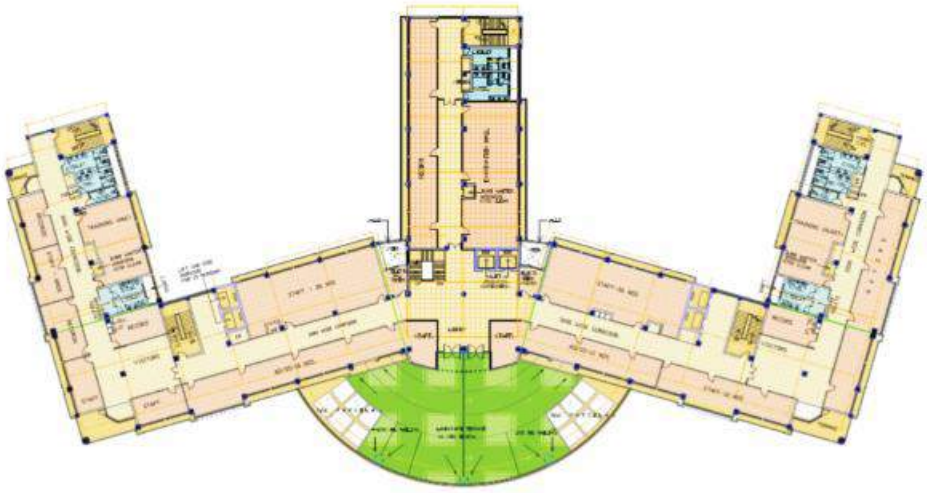
The building design resembles an eagle shape and thus gives its majestic looks and a feel of strength and longevity. The design concept complements working and importance of Audit and Account department. It occupies prestigious and prime location near Vidhan Sabha on state highway of Raipur. The building consists of Basement and Ground floor plus 8 stories divided in three wings on each floor. Traditional art feature of Chattisgarh are incorporated in building facades by adopting local Art and Architecture. The building is fully central air conditioned. Fire safety and accessible norms has are adopted. Energy efficient fixtures are used in the building.

Cost:
Rs 40 crores

Area of the plot:
5.42 Acres (21961 Sqm)

Total Built Up Area:
23492 Sqm

Number of Floors:
B + Ground + 8 Floors



Floor Plan



Site Plan

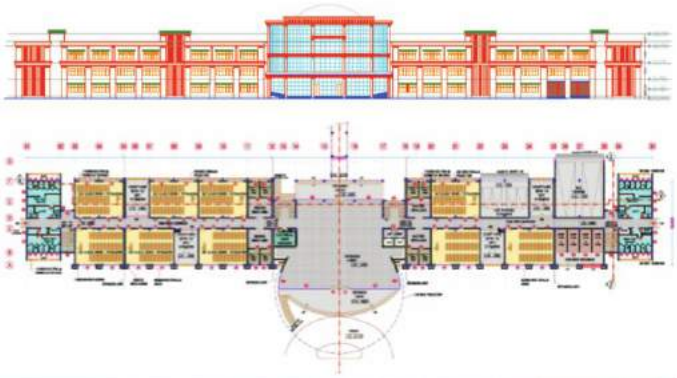


ACADEMIC ANNEXURE BUILDING
NIT, RAIPUR

Design Philosophy

The Academic Annex. Building is proposed in existing campus of National Institute of Technology Raipur situated in Raipur (C.G.) with the view to full fill the infrastructural requirements of teaching class room, library and faculty rooms. The overall building is well planned with three zones of library, class rooms and faculty rooms. The library zone constitutes the central part of the building faces north direction which invites natural lightening and restricts direct glare. Raipur has tropical wet and dry climate. Three courtyards have been provided with the view of passive cooling techniques. Vertical fins provided in the building to protect from direct sun glare. This element also engulfs within the overall architectural style of the rest of the academic building.







Cost:
Rs 49.23 crores

Area of the plot:
Part of campus

Total Built Up Area:
10293 Sqm

Number of Floors:
Ground + 3 Floors

240 BEDDED SUPER SPECIALITY HOSPITAL
RAIPUR



Perspective View

Cost:
Rs 110 Crore

Area of the plot:
40 Acres

Total Built Up Area:
3097 Sqm

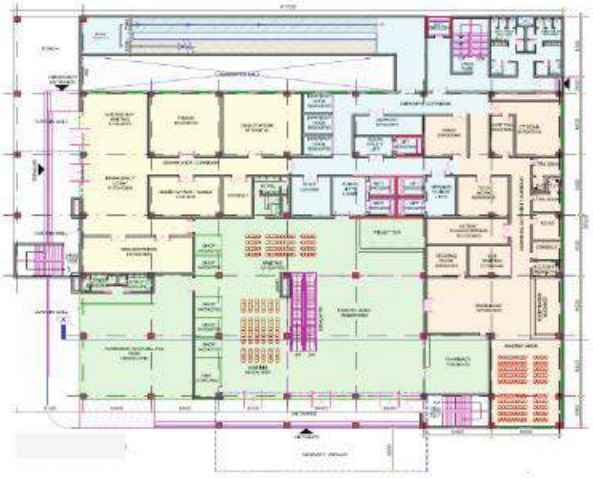
Number of Floors:
Ground + 10 Floors

Design Philosophy

The zoning is developed in such a manner to have maximum day light and ventilation. It is planned to be partially air-conditioned and partially natural ventilation.

The services are well planned in the preliminary stage to cater to all the requirements such as catering unit, HVAC, CSSD, linen store, etc.

The 4 floor high atrium lobby with skylight gives a feeling of openness within the building. It is glazed and hence gives sufficient light in lobby area, waiting and corridors. It has been designed to make it barrier free and accessible.



Ground Floor Plan

PASSPORT OFFICE
BANER PUNE



Design Philosophy

The plot is a long narrow strip that demands lot of planning techniques. Due to the stringent parking requirement of Pune Local authority and Building requirement from Client dept., car parking is provided in Basement floor and Stilt Floor.

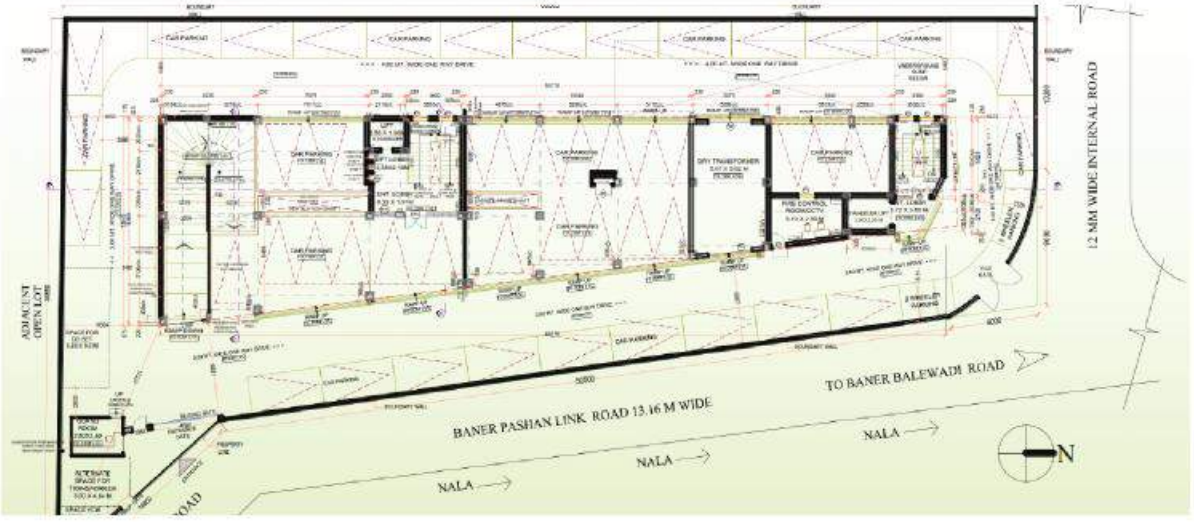
The building facade has been given contemporary look to suit modern building aesthetics with the help of structural glazing and aluminum composite panels. It has Provision for Fire fighting systems and Rainwater harvesting system as well.

Cost:
Rs 17.53 Crore

Area of the plot:
1602.47 Sqm

Total Built Up Area:
2505.39 Sqm

Number of Floors:
B + Ground + 4 Floors



Layout Plan

NATIONAL INSTITUTE OF MENTAL HEALTH & REHABILITATION (NIMHR), BHOPAL



Design Philosophy

NIMHR is to address psychological / psychiatric issues of public for which Administrative and Institutional (service) building, studio apartments, building for short stay for parents of patients, girls & boys hostel block are required to be designed in a campus of 25 acres area on Sehore - Bhopal highway. This design involves planning of overall campus in a phased manner for present & future, individual planning of building blocks.

Cost:
Rs 105.68 Crores

Area of the plot:
25 Acres (101199.24 Sqm)

Total Built Up Area:
21102 Sqm

Number of Floors:
Ground + 3 Floors

Proposed site is of irregular shape having an area of 25 acres bisected by existing high-tension electrical line. Site layout is made by differentiating the non residential zone for phase -1 (present proposal) and residential zone for phase-2 (future proposal). Feeder roads inside the site is designed along the existing high tension line so that the area is used effectively. Two numbers of entrance and exit are provided. Space has been demarcated at the lowest contour of site for service structure including STP. Phase-1buildings have been planned in curvilinear manner so that a flow is maintained for functional utility as well as for aesthetics.



Site Plan



Campus View

CENTRAL ACADEMY FOR POLICE TRAINING
BHOPAL



Administrative Plan

Design Philosophy

It has incorporated integrated planning for maximum functional space utilization. Dome is Introduced to give sense of authority to the building. "State of Art" features has been used in this Building with the latest facilities. Courtyard type of planning is adopted with other sustainability based features including Rain water harvesting etc.

Cost:
Rs 210 crores

Area of the plot:
397 Acres

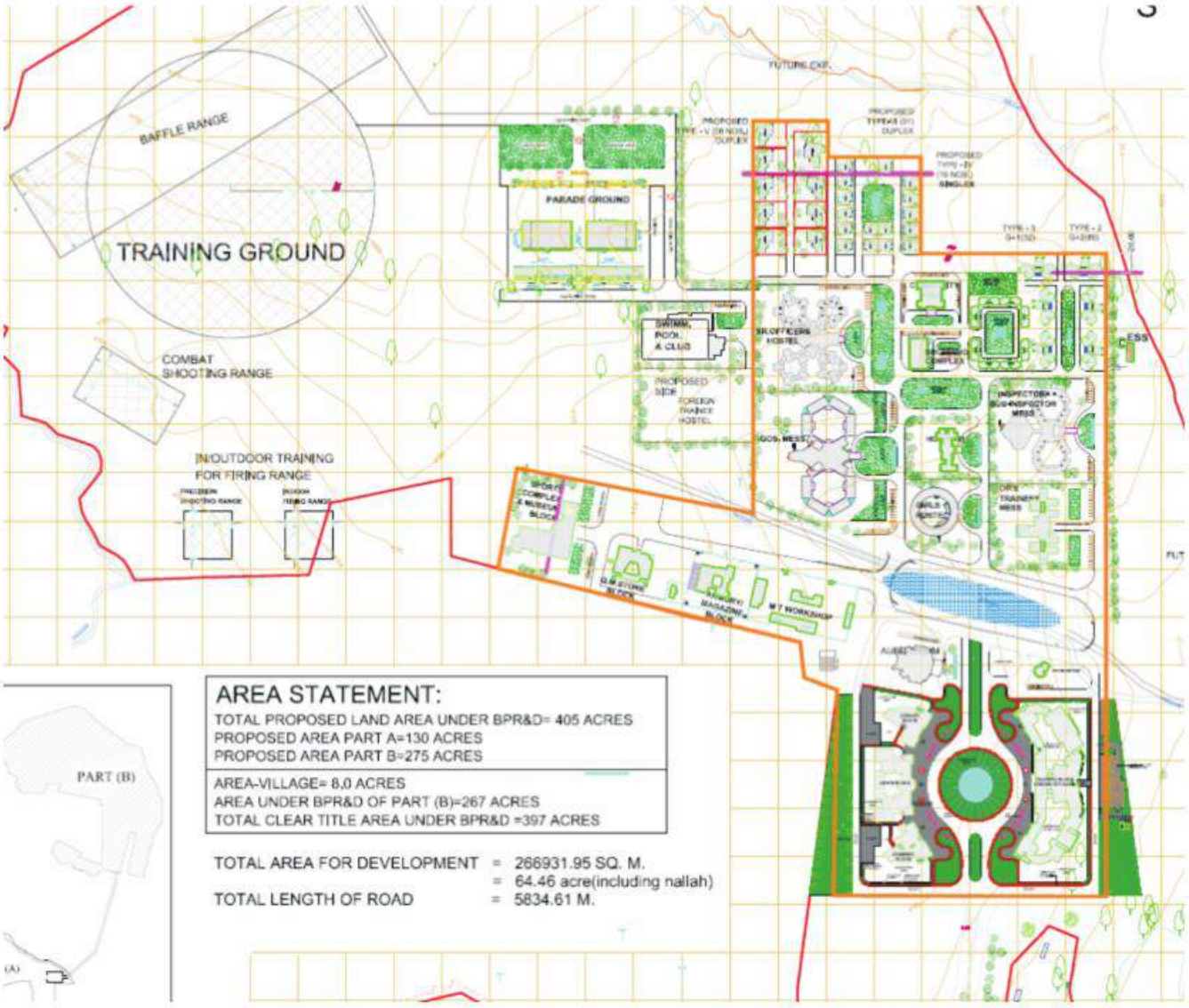
Number of Floors:
Ground + 1 Floor



Academic Block



Forensic Lab



Campus Layout Plan

BUILDING FOR INDIAN COAST GUARDS
WORLI, MUMBAI



Design Philosophy

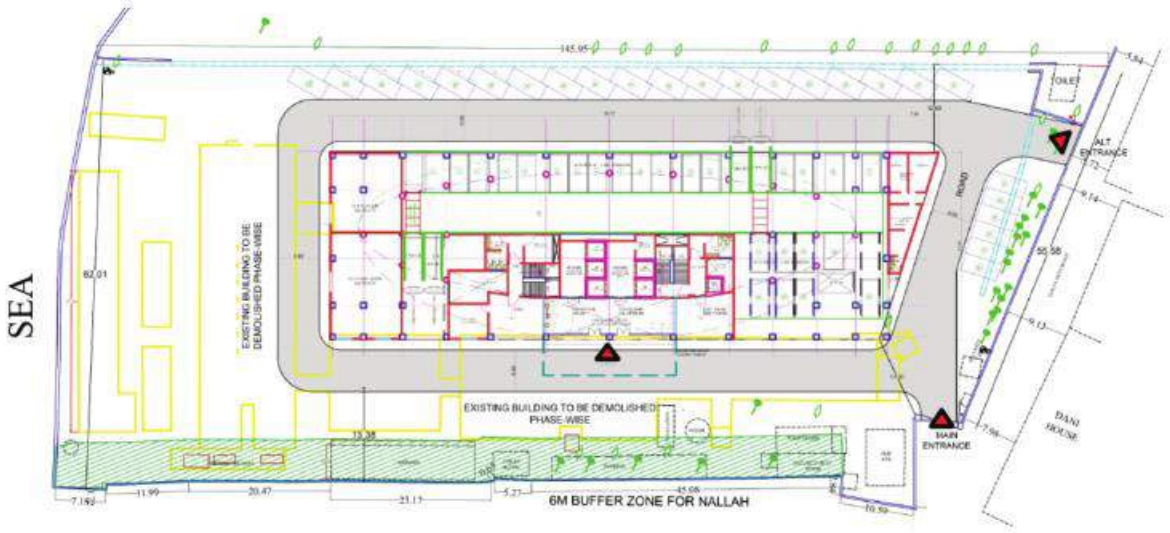
The clients desired to have green iconic tower overlooking the Arabian sea with features derived from Sea and Ships. To fulfill the client's aspiration the design team developed this form, the tilted top of the tower is derived from the bridge of ships and overall shape of the tower is derived from the whirlpool. The projected upper floors are designed in such a manner which not only compliments the form of the building but also maximizes the view of the Bandra-Worli Sea link. The tower is equipped with all modern green building features, Automated car parking and a rooftop helipad.

Cost:
Rs 119.16 crores

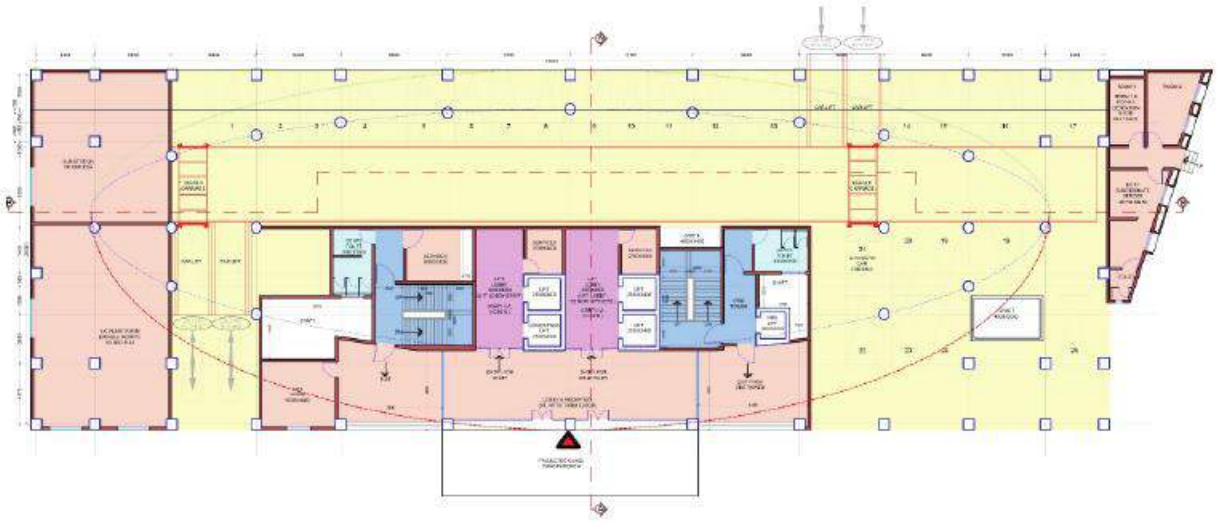
Total Built Up Area:
8322.2 Sqm

Number of Floors:
Ground + 15 Floors

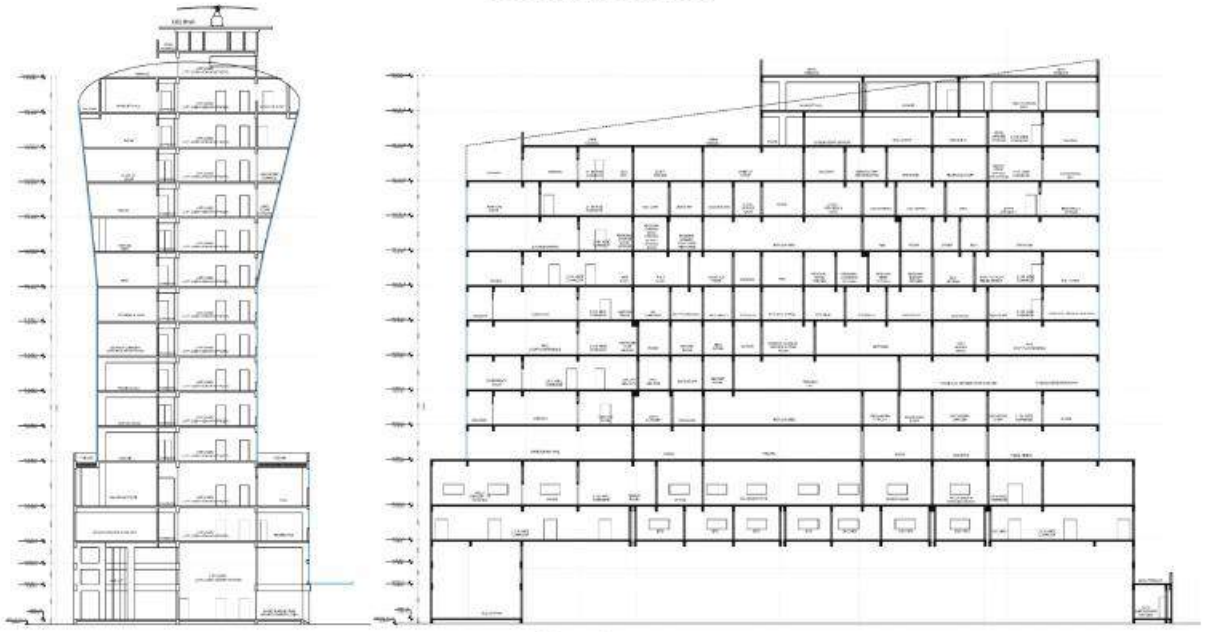
The building is planned to have high efficiency double glazing skin. Provisions in design for GRIHA compliance has been taken i.e. shading device and light shelves to achieve good quality daylight without glare, motion sensors to switch off / on light and appliances, solar panels on roof top , on site STP, use of Fly ash in construction and Low VOC finishes in the construction.



Layout Plan



Ground Floor Plan



Sections

VIDESH BHAWAN (Office of MEA)
BHOPAL



Design Philosophy

The office have been designed as sustainable building and according to the climatic conditions of Bhopal. Sunken windows have been proposed at southern facade of building to minimize direct solar admission through windows. Toilet block, lift & staircase have been proposed in the building at the south & south west direction to minimize direct penetration of solar radiation. Solar panels have been provided on top of terrace to reduce the energy consumption and also to block the direct sunlight thereby reducing the heat load on air conditioning.

Cost:
Rs 26.37 crores (Approx)

Area of the plot:
0.43 Acres (1743 Sqm)

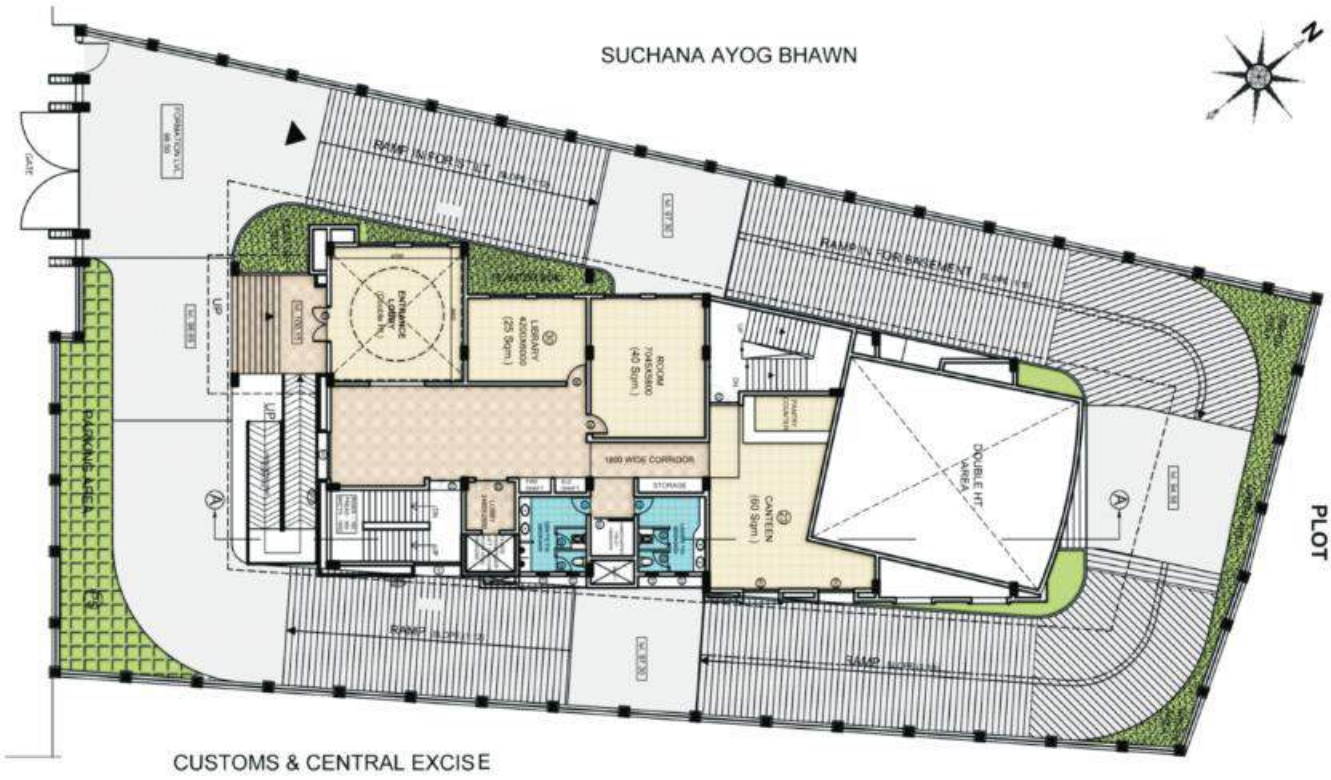
Total Built Up Area:
3930 Sqm

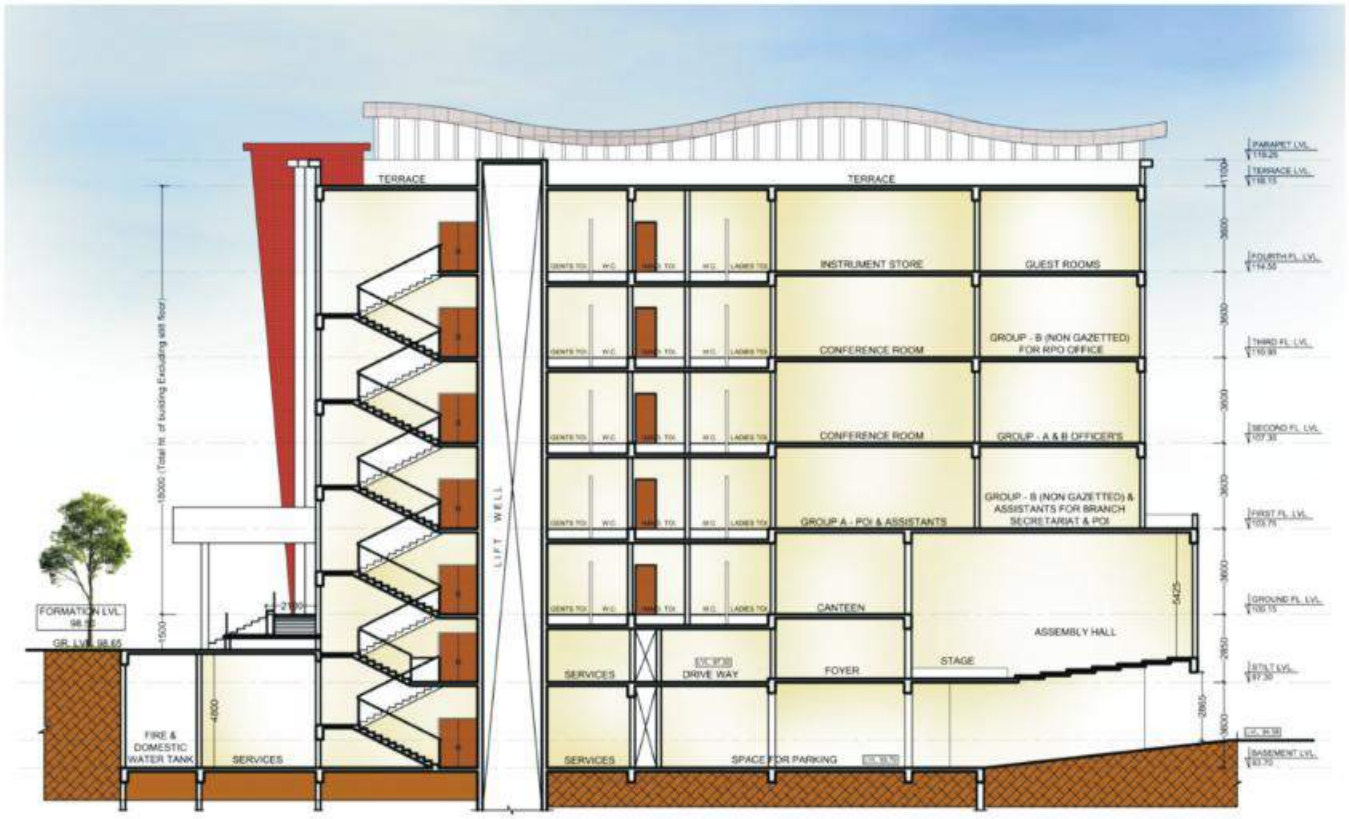
Number of Floors:
B + Ground + 4 Floors

Solar panels have been proposed at 2400mm above terrace level so the valuable surface of terrace can be utilized for services like Air conditioning and Fire fighting etc.

To minimize the heat radiation on glazing perforated high pressure laminate has been proposed in the front facade.

Provisions have been made in the building to make it barrier free.





OFFICE BUILDING OF INCOME TAX DEPT.
NAGPUR



Design Philosophy

Building has been strategically planned along the main road to have maximum frontage. Building designed in Colonial style ornamented with carved stone columns, jalies and arches. It has Basement, ground floor and 6 nos of upper floor having state of art facilities & green building concept. Landscaped central court is provided as breathing space and covered with dome and louvers with solar panels.

Cost:
Rs. 70 crores (Approx)

Area of the plot:
5.48 Acres (22160 Sqm)

Total Built Up Area:
17049 Sqm

Number of Floors:
B + Ground + 6 Floors

Building overlooks landscape area & terrace garden with water bodies & plantations and Solar power pack & solar water heating system for renewable energy sources.

Some of the other features are water & sewage treatment plant for waste recycling and universally accessible design- ramps, lifts, brail & tactile sign used for circulation, accessible toilets at each floor.



Floor Plan

STAFF QUARTERS INDIAN AUDIT AND ACCOUNTS DEPARTMENT
MUMBAI



Cost:
Rs 167.15 crores (Approx)

Area of the plot:
8.65 Acres (35022 Sqm)

Total Built Up Area:
56614 Sqm

Number of Floors:
S + 11/21 Floors

Design Philosophy

High rise residential redevelopment project to accommodate increased dwelling needs of IAA&AD. Inclusive planning approach has been adopted to have a better integrated social environment.

The whole project is divided in two phases where judicious zoning is done incorporating the site suitability.



The layout is planned symmetrically around a raised parking podium, which gives a visual connecting band type illusion in between the 3 buildings of phase one of the project. The green area for recreation purpose is placed behind the building block to minimize vehicular disturbance.

Green building initiatives to minimize the electricity consumption and giving back to grid is in the process. Hard green paving is proposed in parking area to decrease water run off and collect the water for the Rain Water Harvesting. High rise – high density design approach to minimize ground coverage and to use the full potential of the site has been adopted.

DR. B.R. AMBEDKAR LEARNING CENTRE
NIT WARANGAL

Design Philosophy

Dr. B.R. Ambedkar Learning Centre is Centre for Excellence to showcase the talent of student community NIT Warangal.

To exhibit the performing arts, folks, culture and to conduct seminars, multipurpose auditorium with screening facility housed at ground floor. Library, meeting hall, guest rooms and class rooms & group discussion activities are provided on the first floor. The auditorium has been designed for 350 capacity keeping in view the functional aspect as required by the client.

Cost:
Rs 12.18 crores

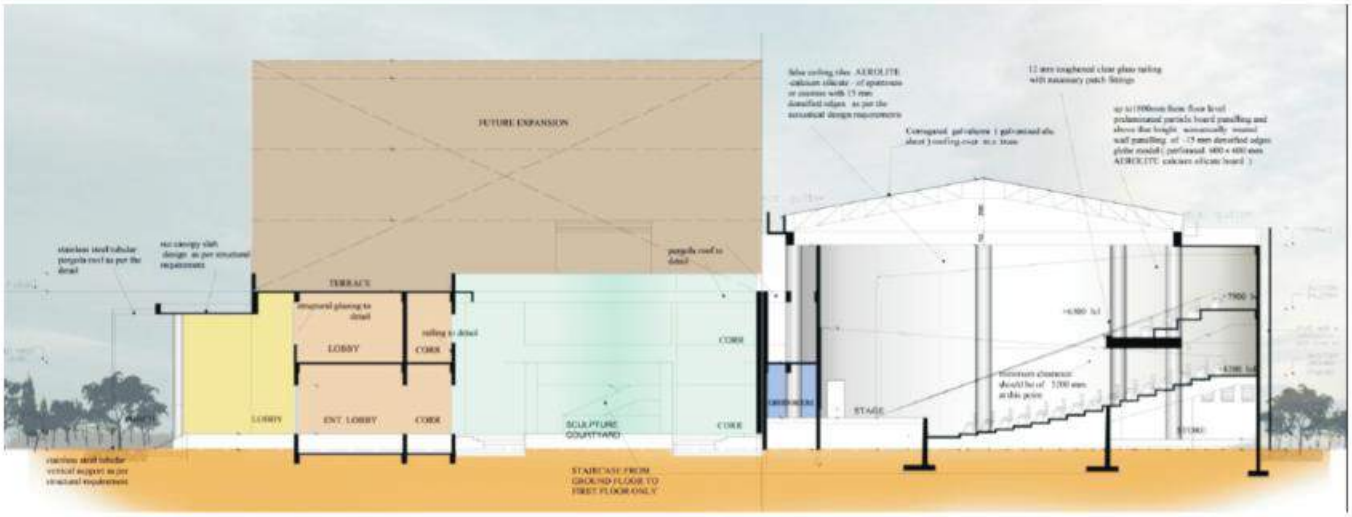
Area of the plot:
Part of Campus

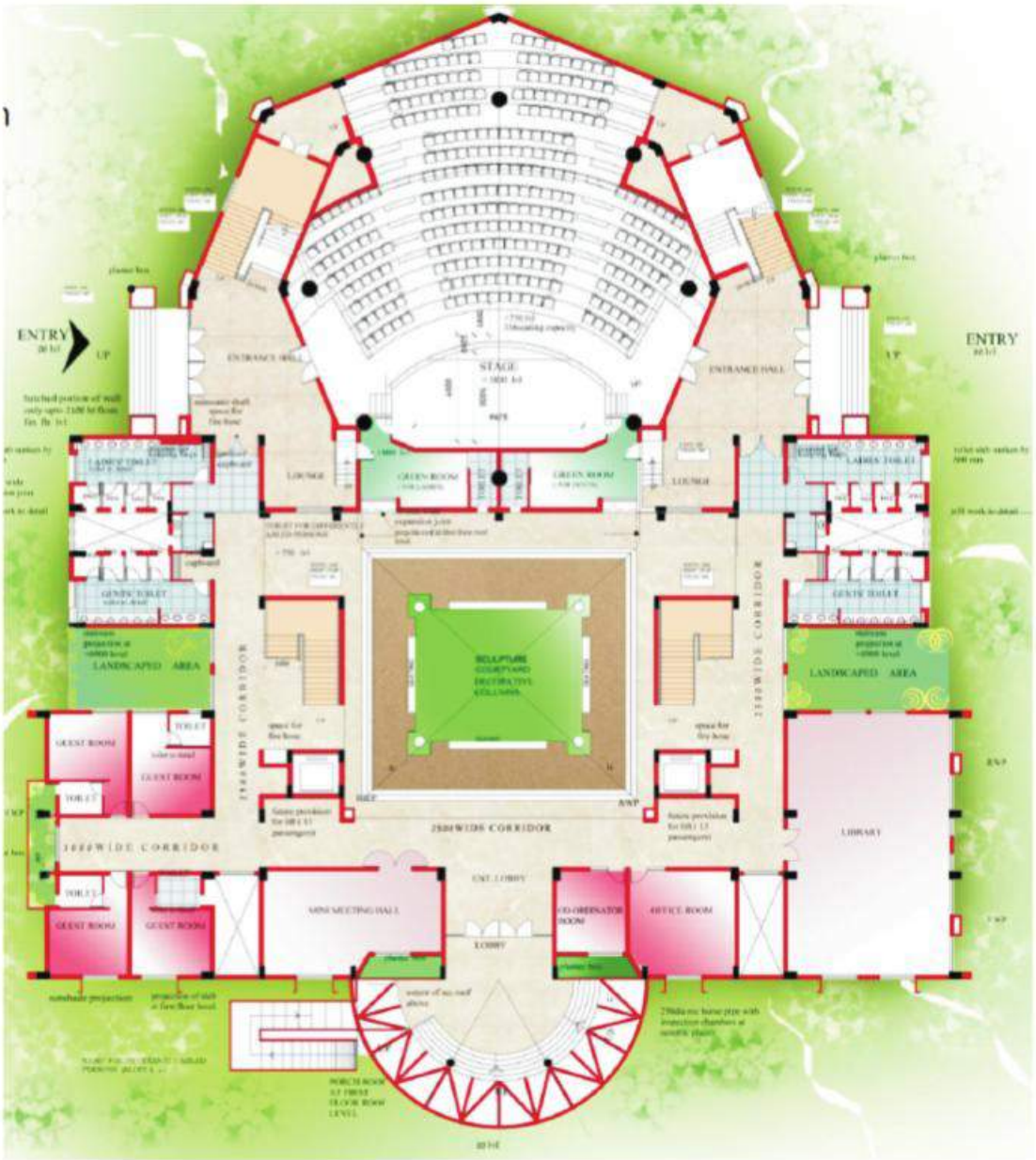
Total Built Up Area:
3001 Sqm

Number of Floors:
Ground + 1 Floor

The Building has been designed as barrier free and in confirmation with green building norms. Natural light and Ventilation, Solar water heating system, LED lighting and solar street lighting are some of the features of this project. The building is aesthetically pleasing and houses the needs of client department within the frame work of norms and building bye laws.







Multi Purpose Auditorium

TEACHING LEARNING CENTRE
NIT WARANGAL



Design Philosophy

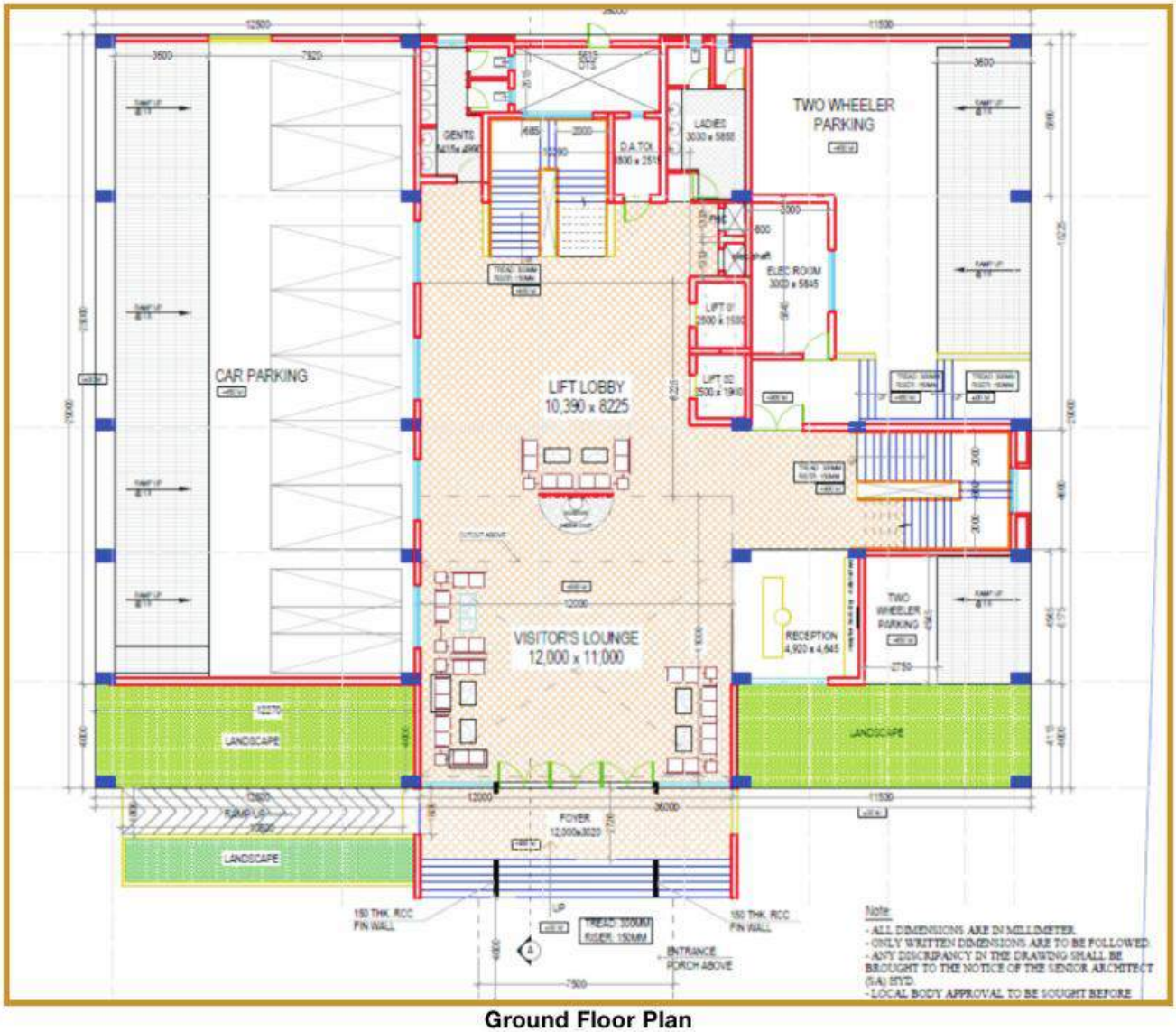
This project is conceptualized with Minimalistic design approach having facilities for persons with disabilities and criteria for sustainability. This building has a foyer at entrance and a double height entrance lobby to add grandeur to its interior space. Neutral color scheme of building has been enhanced by using vibrant colors and finishes in small Niches and pockets.

Cost:
Rs 12.18 crores

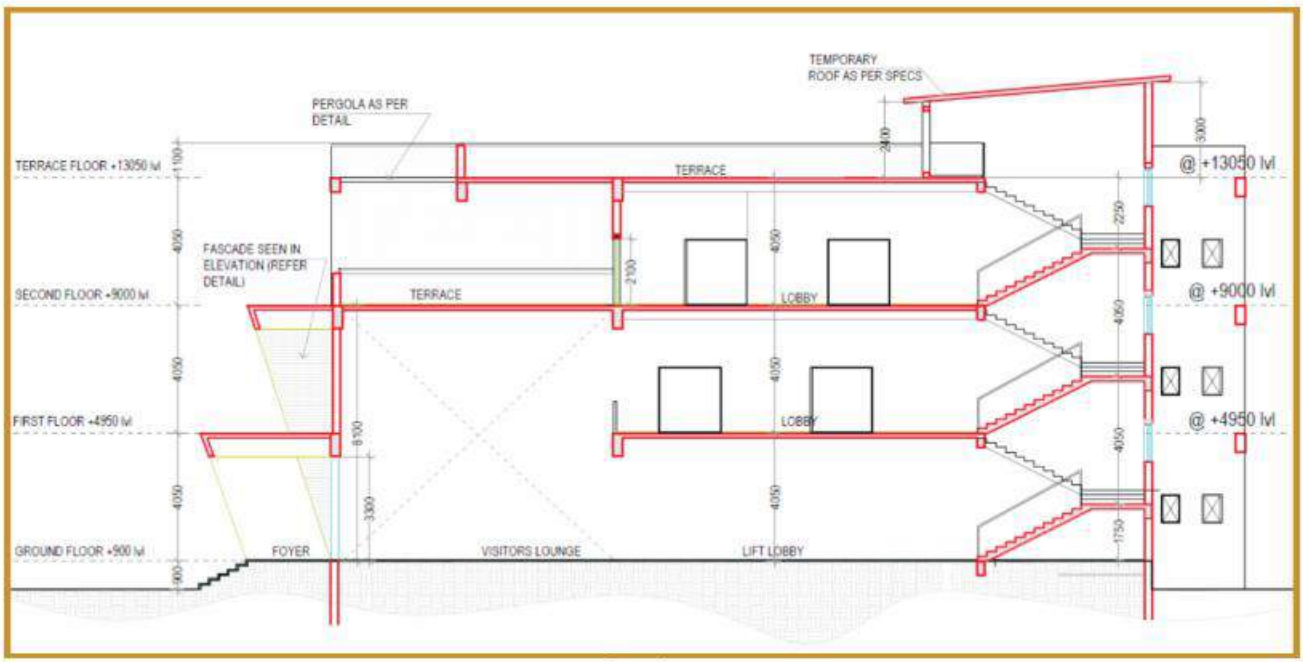
Area of the plot:
3309 Sqm (Part of Campus)

Total Built Up Area:
2283.43 Sqm

Number of Floors:
Ground + 2 Floors



Ground Floor Plan



Section

ADMINISTRATIVE AND ACADEMIC BLOCK
RVTI, HYDERABAD



Design Philosophy

The Administrative Block and the Academic block are such planned that they compliment each other in the design. The whole campus has been divided in different zones as per there functional use by placing open air theatre at center (as a Metaphor of nucleus). These zones have been designed by taking care of local context and micro climatic features. Green areas and openings in and around the buildings have been planned to behave like breathing spaces.

Cost:
Rs 17.50 crores

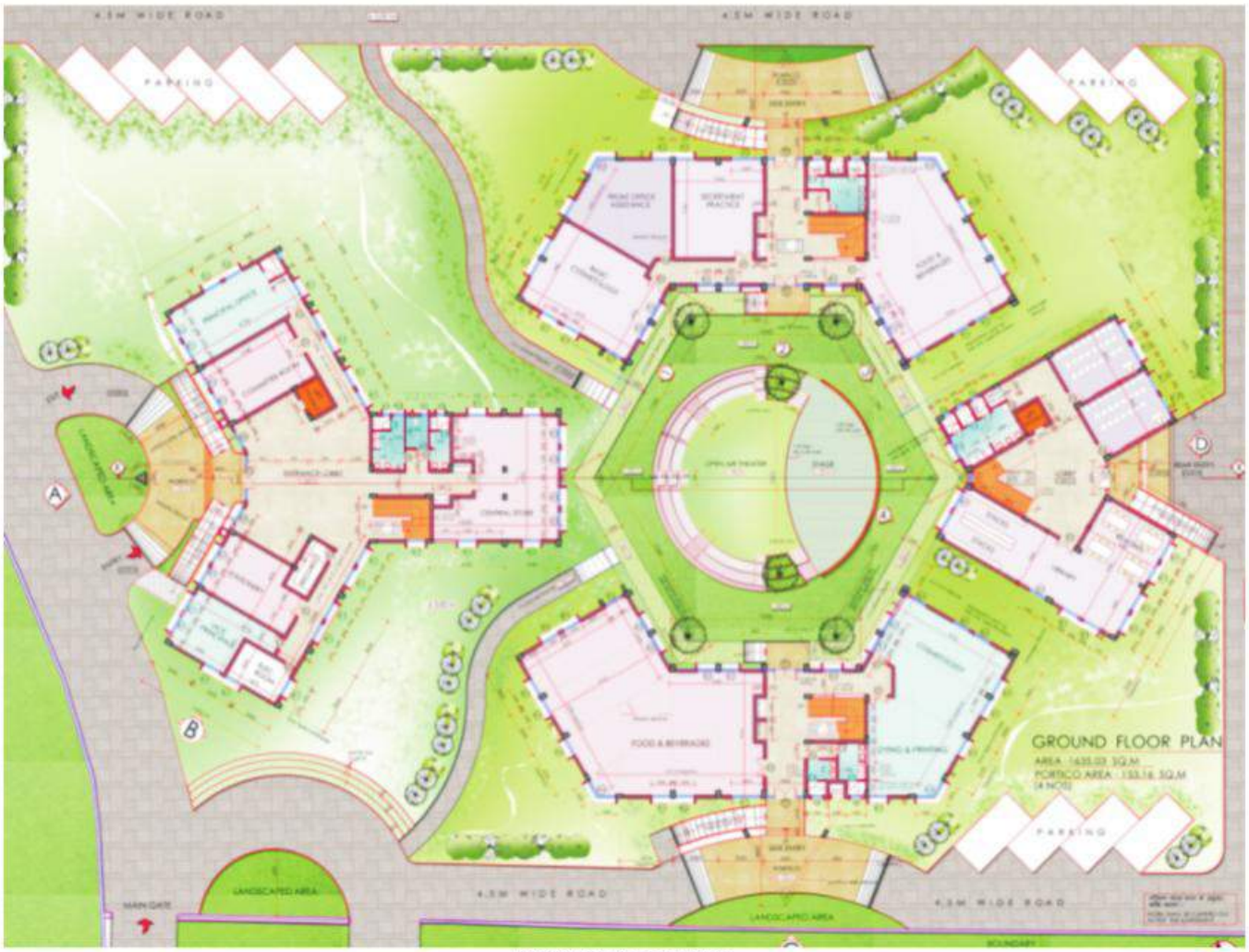
Area of the plot:
3.69 Acres (14957 Sqm)

Total Built Up Area:
4930 Sqm

Number of Floors:
Ground + 2 Floors



Site Plan



Ground Floor Plan

OFFICE BUILDING
ICMR, HYDERABAD



Design Philosophy

Concept of blending the natural elements with building is adopted in the creation of Administrative Building for National Resource Facility for Bio-Medical Research to provide ambient/refreshing environment to the occupants.

It has designed as ground plus one storied housing Canteen, Library, records and accounting wing in Ground floor. The Director Office, conference and Scientist rooms are provided in the first floor.

Cost:
Rs 9.45 crores

Area of the plot:
67.52 Acres (273172 Sqm)

Total Built Up Area:
4722 Sqm

Number of Floors:
Ground + 1 Floor

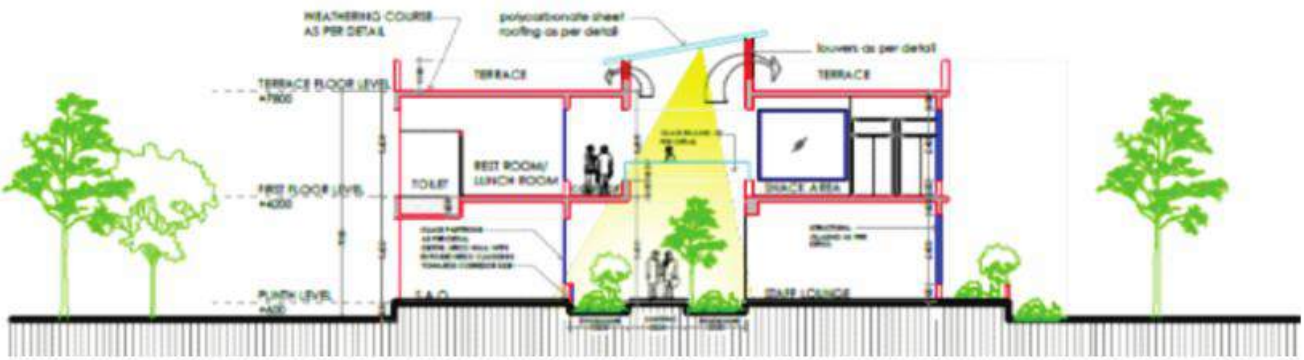
The Building has been designed as barrier free and in confirmation with green building norms such as abundant natural light and ventilation, Solar water heating system, LED lighting and Solar street lighting.

The building reflects its original character, aesthetically pleasing and meets the requirements of client department within the frame work of norms and building bye laws.



Ground Floor Plan





Section

EXPERIMENTAL FACILITY FOR RODENTS FOR N.A.R.F

HYDERABAD

Cost:
Rs 210 crores

Area of the plot:
(102 Acres)

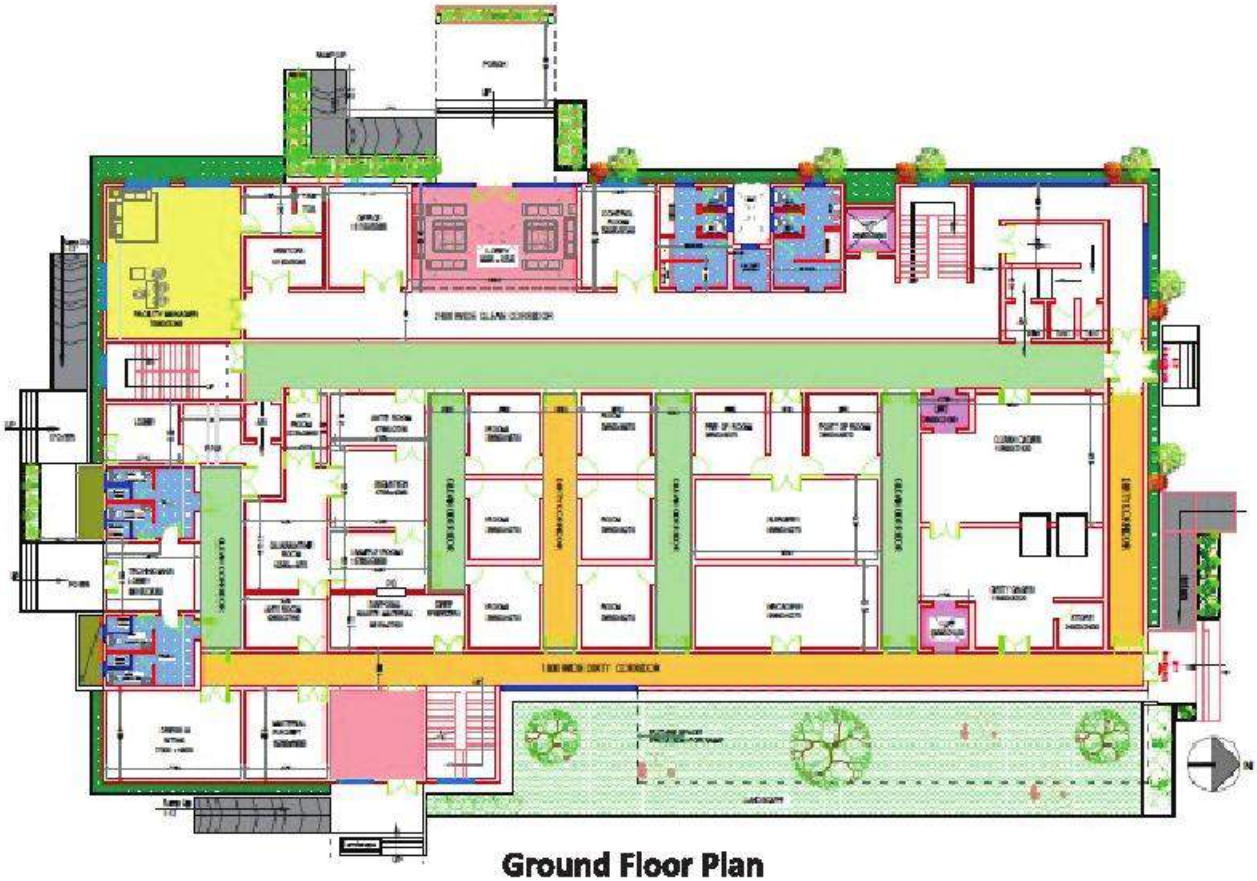
Total Built Up Area:
38568 Sqm



Front View of The Building



View of the Complex



Ground Floor Plan



First Floor Plan

OFFICE BUILDING FOR CBI
HYDERABAD



Perspective View

Design Philosophy

Concept of blending the natural elements with building is adopted in the creation of Office Building for CBI, in order to provide refreshing environment to the occupants.

The Building has been designed as barrier free and in confirmation with green building norms such as Abundant Natural light and Ventilation, Solar water heating system, LED lighting and solar street lighting.

Cost:
Rs 20 Crores

Area of the plot:
18,999.25 Sqm

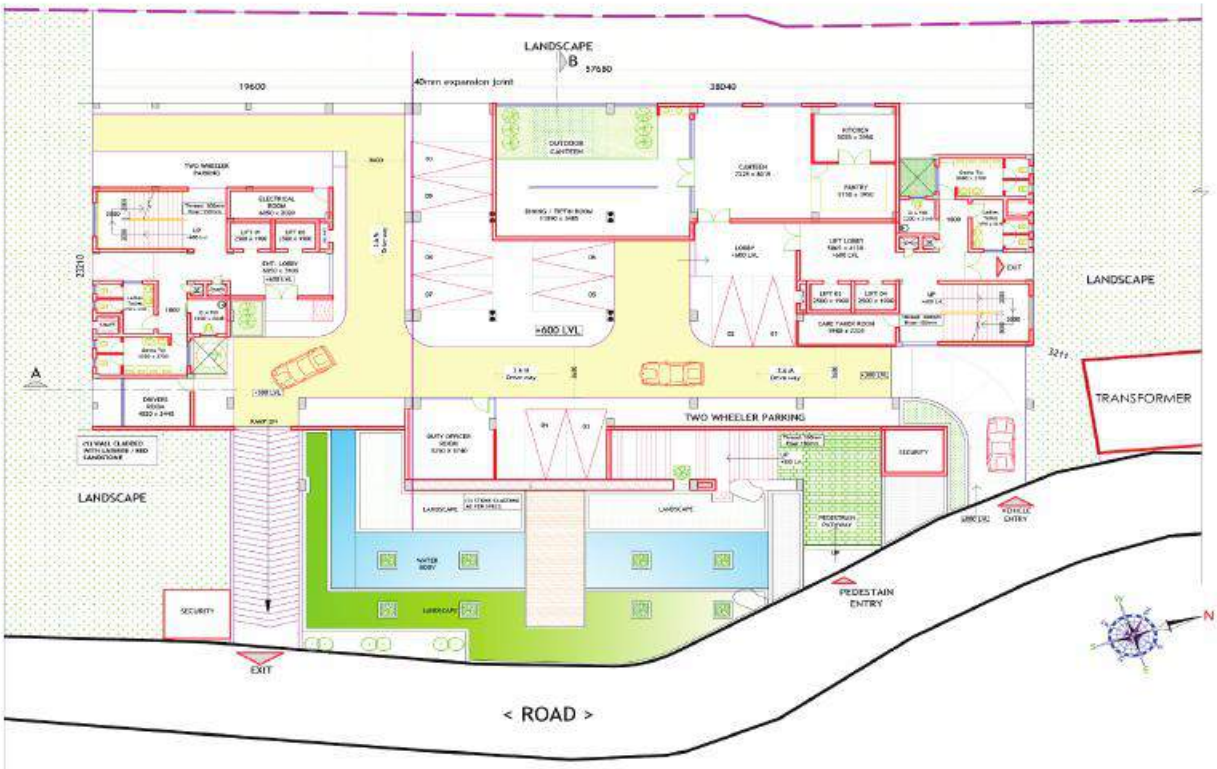
Total Built Up Area:
4,085.72 Sqm

Number of Floors:
Ground + 3 Floors

The building reflects its original character, aesthetically pleasing and houses the needs of client department within the frame work of norms and building bye laws.



Site Layout Plan



Ground Floor Plan

STUDENTS AMENITIES CENTRE FOR UNIVERSITY

HYDERABAD



Perspective View

Design Philosophy

Amenities Centre, has been conceived on Single Axis creating soft landscape pockets (which will act also as rain water harvesting resources) for coordinated interaction of student's community. The building reflects its original character, aesthetically pleasing and houses the needs of client department within the frame work of norms and building bye laws.

Open air theatre is annexed to the Main building with lift facility. Restaurant dining space located in such a way to cater both Main Block as well as open Air Theatre.

Cost:
Rs 12.25 Crore

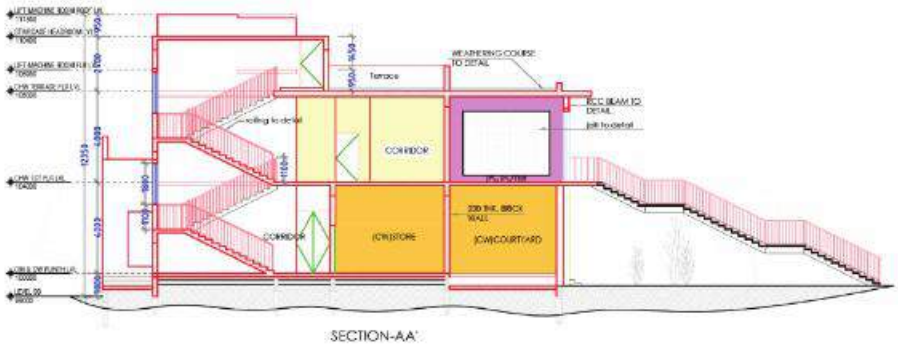
Area of the plot:
13594.6 Sqm

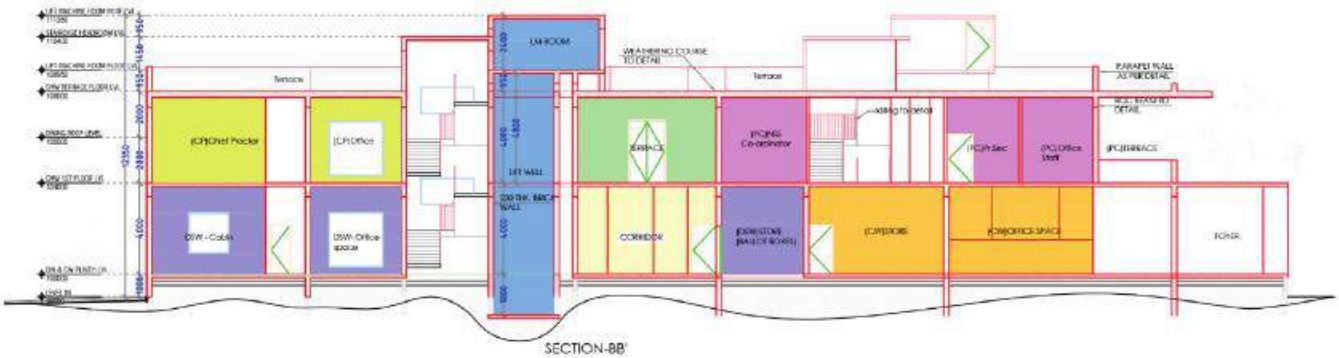
Total Built Up Area:
3196.07 Sqm

Number of Floors:
Ground + 1 Floor



Ground Floor Plan





Sections

INCOME TAX TOWER
BENGALURU



Design Philosophy

The design of the building deploys next generation technology with emphasis on sophistication and energy efficiency complying with green building specifications and vastu. Its sweeping skyline panorama and incredible glass façade makes the place to enjoyable to work. This 18 storied tower boasts an FAR of 4 and a total built up of 3.18 lakh sq ft area .The building profile and orientation is aligned such that majority areas are self shaded. The southern façade with maximum direct light is lined with photovoltaic glass panels. The service core is placed at the western and south-eastern facades to reduce the heat ingress.



The campus comprises of electric substation with 100% backup, centralized AC with integrated fire protection and fire alarm system. The traffic movement is planned such that there is no criss-crossing of incoming and outgoing vehicles. Cutting edge technology is employed for security and surveillance as well as multi-level mechanical car parking of 400 cars. A specialized car lift caters to the VIP parking at levels 2-4.

The other features of the building are grand triple height porch, barrier free features with main entry in the eastern side as per vastu, mesmerizing double height lobby decked with elegant lighting, a food court that caters to 200 people, water conservative fixtures, full recovery of grey water and high speed elevators.

Cost:
Rs 450 Crore

Area of the plot:
1.31 Acres (5318.70 Sqm)

Total Built Up Area:
31800 Sqm

Number of Floors:
Ground + 18 Floors

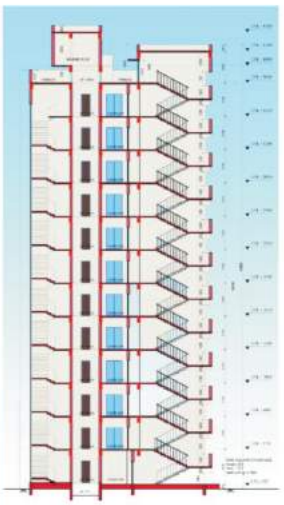


INDIAN COAST GUARD MARRIED ACCOMMODATIONS

VISAKHAPATNAM

Design Philosophy

The clients requirement of 22 Nos Type V Quarters is met by conceiving multistoried tower having Stilt + 11 storied so as to save the precious land for greenery, playground and space for further expansion. The project is having two quarters on each floor on either side of central core with two nos of lifts and two staircases to meet the NBC and fire requirements. Each quarter is having the entry point, one serving living room and the other to servant quarter. There are three bedrooms out of which two are having attached toilets. Separate box room is also provided for storage purpose.



Green building parameters as per CPWD norms has been adopted. The building is also barrier free as per the accessible guidelines.

Cost:
Rs 25.53 crores

Area of the plot:
22.5 Acres (91054 Sqm)

Total Built Up Area:
6857 Sqm

Number of Floors:
Ground/S + 11 Floors





500 SEATER GIRLS HOSTEL
NIT, CALICUT



Design Philosophy

Cost:
Rs 55.96 crores

Area of the plot:
3.23 Acres

Total Built Up Area:
18076 Sqm

Number of Floors:
Ground + 9 Floors

The design process started with the basic parameters of working with the existing landscape. The concept of this building revolves around the focal point to retain major existing trees on the site. Mapping of major trees were done and a central open space is created around these trees. Blocks are placed around this courtyard and also smaller courtyards are created to maintain the hierarchy of open spaces. Central courtyard is designed in two levels with an open air theatre at level-I under the existing tree. The four blocks of ten storied each are placed on N-S orientation to avoid direct sunlight and to have maximum air circulation. Two clusters having twin blocks each are designed to have common lift

and entry lobbies and placed on two different contours to set on natural ground and to optimize cutting and filling at site .

Each block is provided with a resident tutor room with attached toilet and a small lobby space at every floor. All the four wings are interconnected to each other and they are connected to common amenities block and smaller courtyards. Each wing has toilets, adequate drying yards and fire escape staircases. Care has been taken to ensure the privacy of students by creating buffer spaces and each block can be separated from common lobby. A double bedded guest room is provided on all the floors as per client requirement. Dining & kitchen and other allied spaces are provided as per requirements. The service entry from higher road is provided at the back of dining blocks to have ease of access to services.

The clients requirement was to have a building as contemporary as possible, colour scheme is chosen to reflect latest technological icons, bright and powerful.



Layout Plan

S.T.P.I - INCUBATION CENTRE
TIRUNELVELI



Perspective View

Design Philosophy

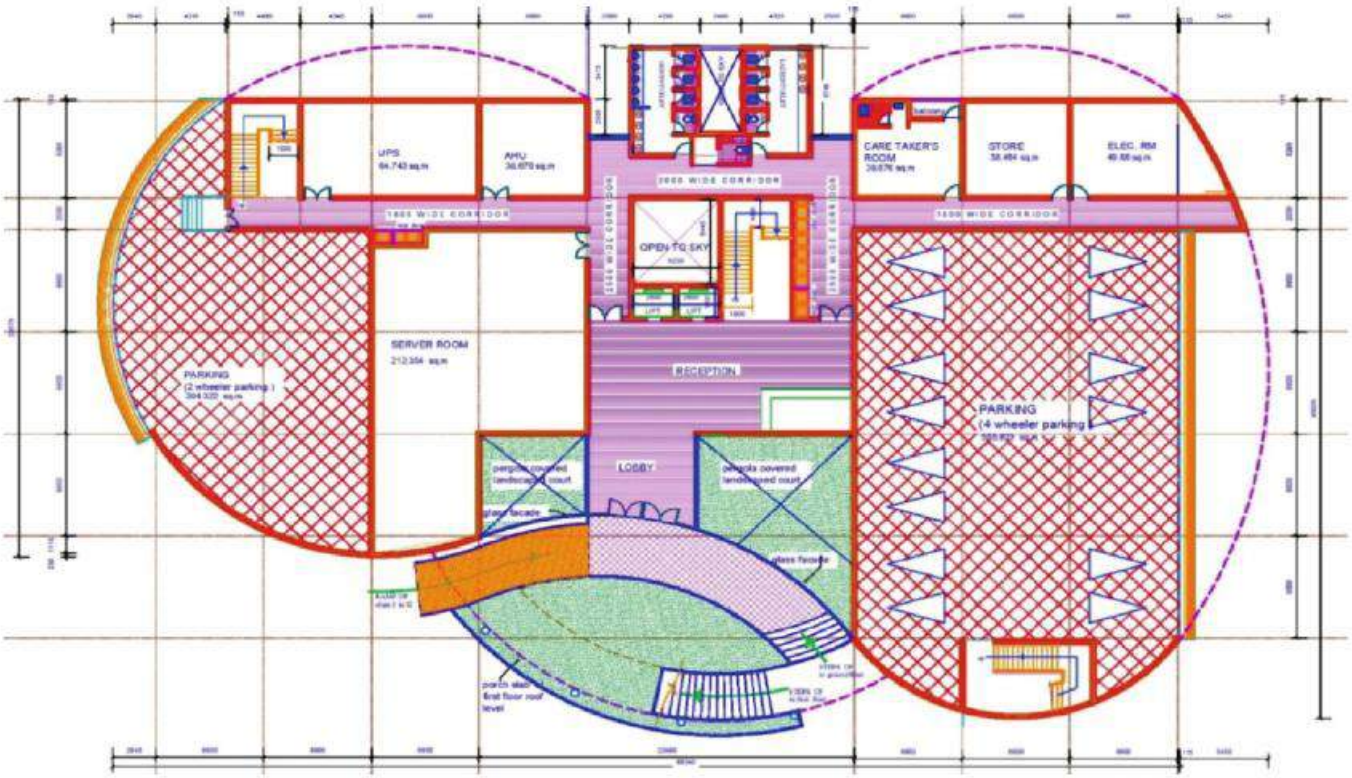
This building is designed innovatively incorporating curve forms on the façade to project an iconic building. The internal layout is carefully planned and designed so as to provide utmost conducive work environment. As it is a fully air conditioned building, services for the same have been taken care. The building is designed as per GRIHA guidelines.

Cost:
Rs 17.11 Crore

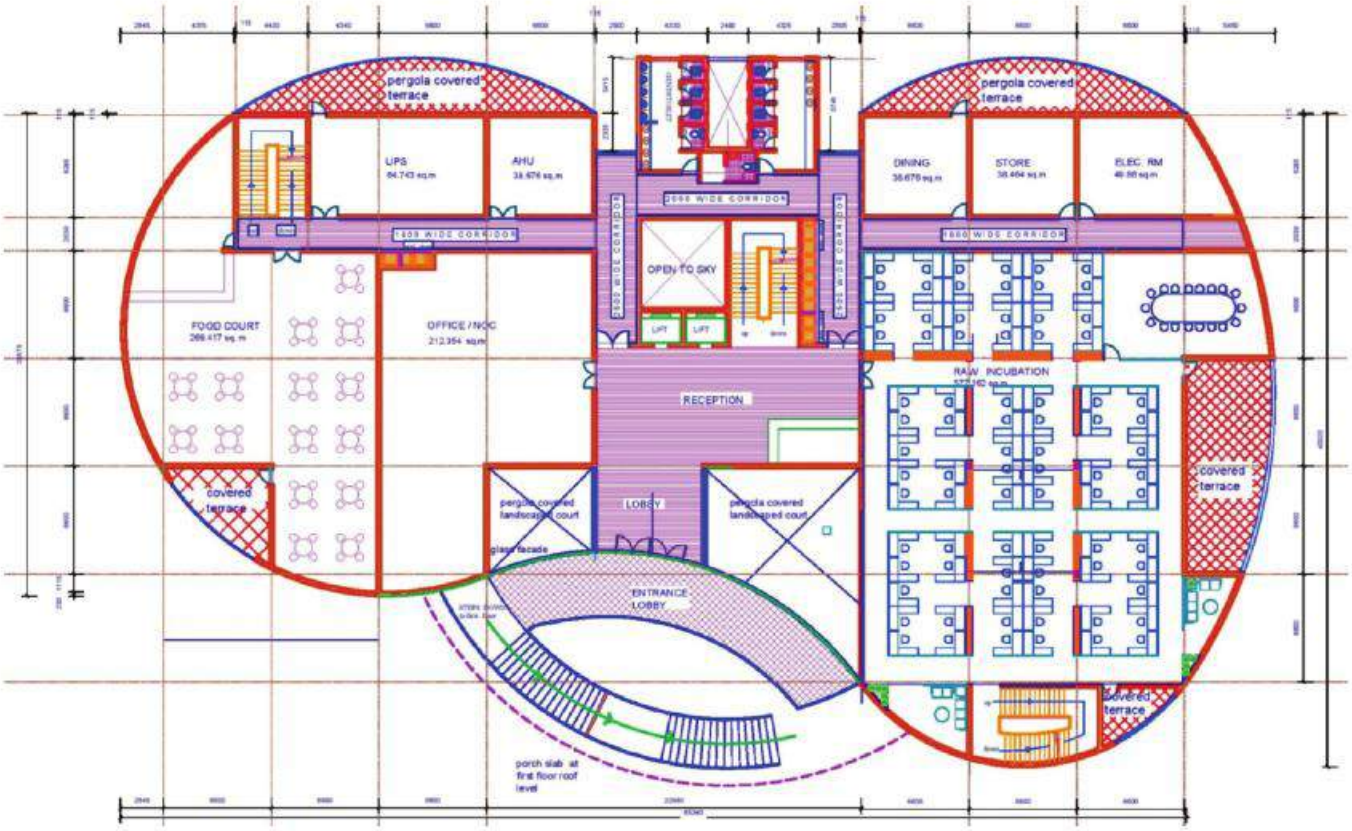
Area of the plot:
3.07 Acres

Total Built Up Area:
2342 Sqm

Number of Floors:
Ground + 2 Floors



Ground Floor Plan



First Floor Plan

HOLIDAY HOME
RAMESHWARAM



Design Philosophy

Perceived and designed as a stand-alone building. The building has been efficiently planned to provide utmost privacy and luxury with spacious rooms and balconies. Green building parameter has been adopted.

Cost:
Rs 22.67 Crore

Area of the plot:
1 Acre

Total Built Up Area:
5183 Sqm

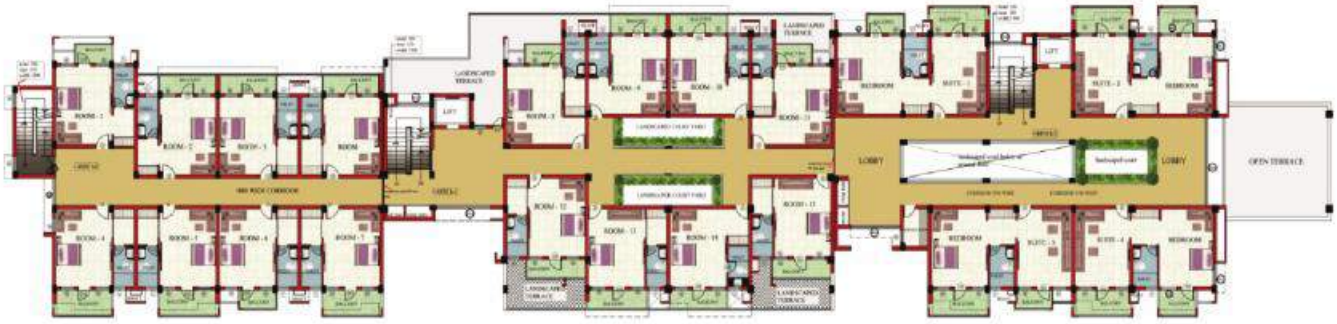
Number of Floors:
Ground + 3 Floors



Perspective View



Site Plan/ Ground Floor Plan



First Floor Plan

TRANSIT COMPLEX FOR INDIAN INSTITUTE OF TECHNOLOGY

PALLAKAD



Site Layout

IIT-Palakkad, newly formed IIT, is currently functioning at Ahalya educational campus at Kozhipura, Palakkad . The site is composed of Rocks with steep contours with combination of plane areas at western corner of middle portion of the site.

Cost:
Rs 86 Crore

Area of the plot:
28 Acres

Number of Floors:
Ground + 2/3 Floor



Perspective View



Perspective View

Design Philosophy

The main road is planned along the boundary at north-eastern side of the front linear portion. Academic complex/conventional center is placed in the front and designed along with slope in different levels. Multipurpose hall/Auditorium Block is designed with car parking onto the side of academic block so as to have segregated public circulation.

Mess is placed at the pivotal point so as to have equal distance of access from academic block as well as residential buildings/Hostel Blocks. Girls hostel is kept slightly on high land and is adequately green-buffered. Boys hostels are clubbed together and are placed on the way to play ground. A service road with separate entry is provided at the lower contour area which runs till the rear play ground.

CENTRE FOR BIO-POLYMER SCIENCE AND TECHNOLOGY

COCHIN



Design Philosophy

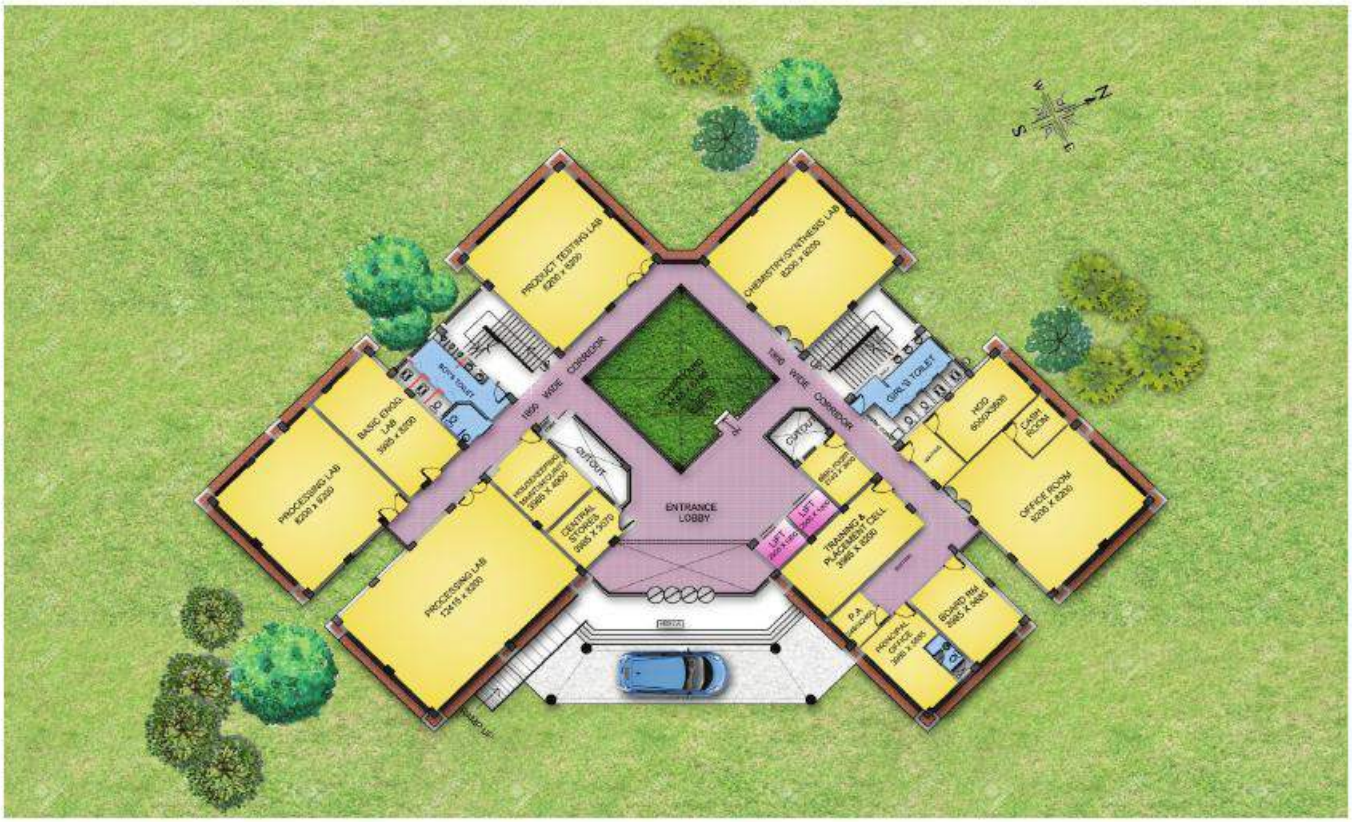
Design of the building focussed on the functional efficiency of the internal layout. Double Glazed structural glazing system for the front façade, central courtyard has been provided for maximum Natural light and ventilation. Green building norms, Barrier free provisions have been adopted in the design.

Cost:
Rs 16.8 Crore

Area of the plot:
3 Acres

Total Built Up Area:
2555.4 Sqm

Number of Floors:
Ground + 2 Floors



Ground Floor Plan



First Floor Plan

SUB REGIONAL OFFICE

EPFO, SALEM



Design Philosophy

A modern structure evolving the shape of the logo of EPF in a curvilinear forms on the façade. The building form and design conforms to the physical and cultural context of the region.

The aesthetics of the building contribute to the urban scenario of the area. To promote cost effective energy efficient initiatives with both passive and active system has been used in the to make the building energy efficient.

RCC Framed structure with structural glazed exterior, well ventilated planning has each space designed with a meaningful purpose for utmost privacy, utility and luxury.

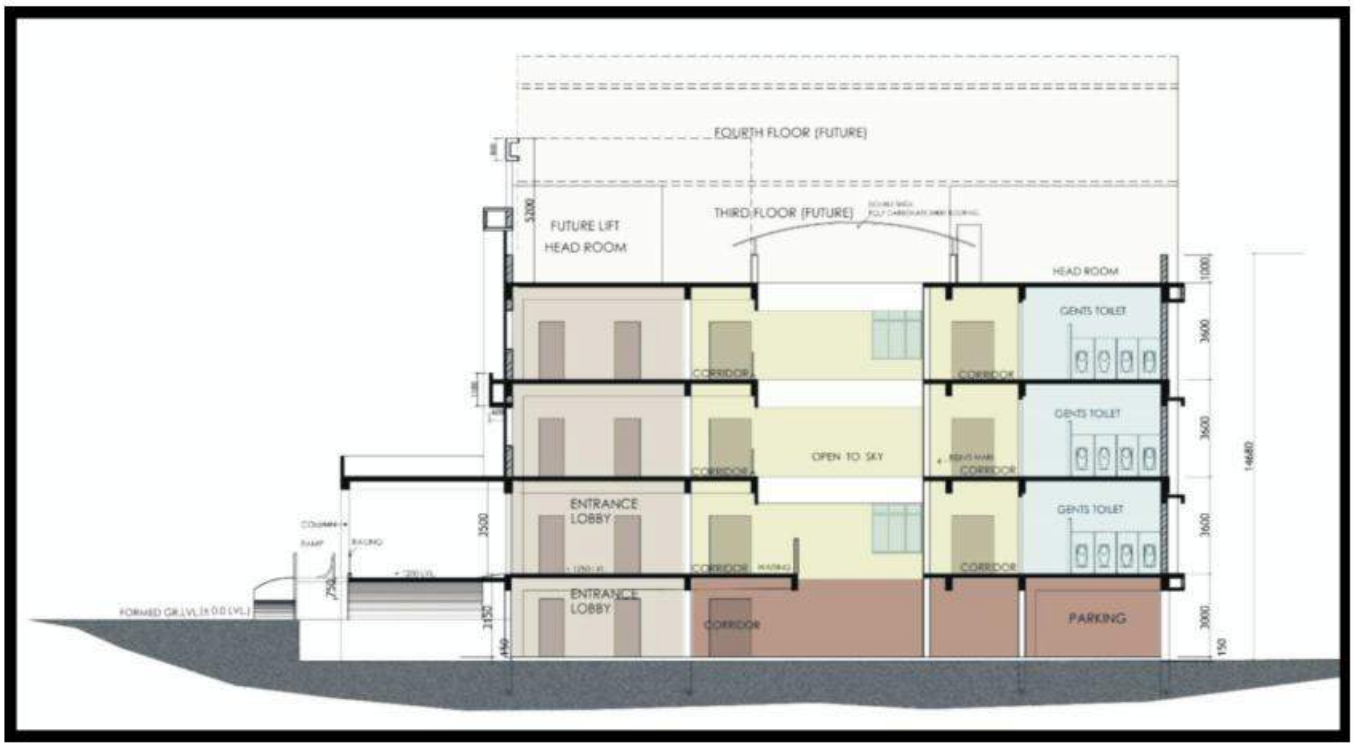
The orientation of the building is such that it allows plenty of natural light and air in all work space.

Cost:
Rs 19.50 crores

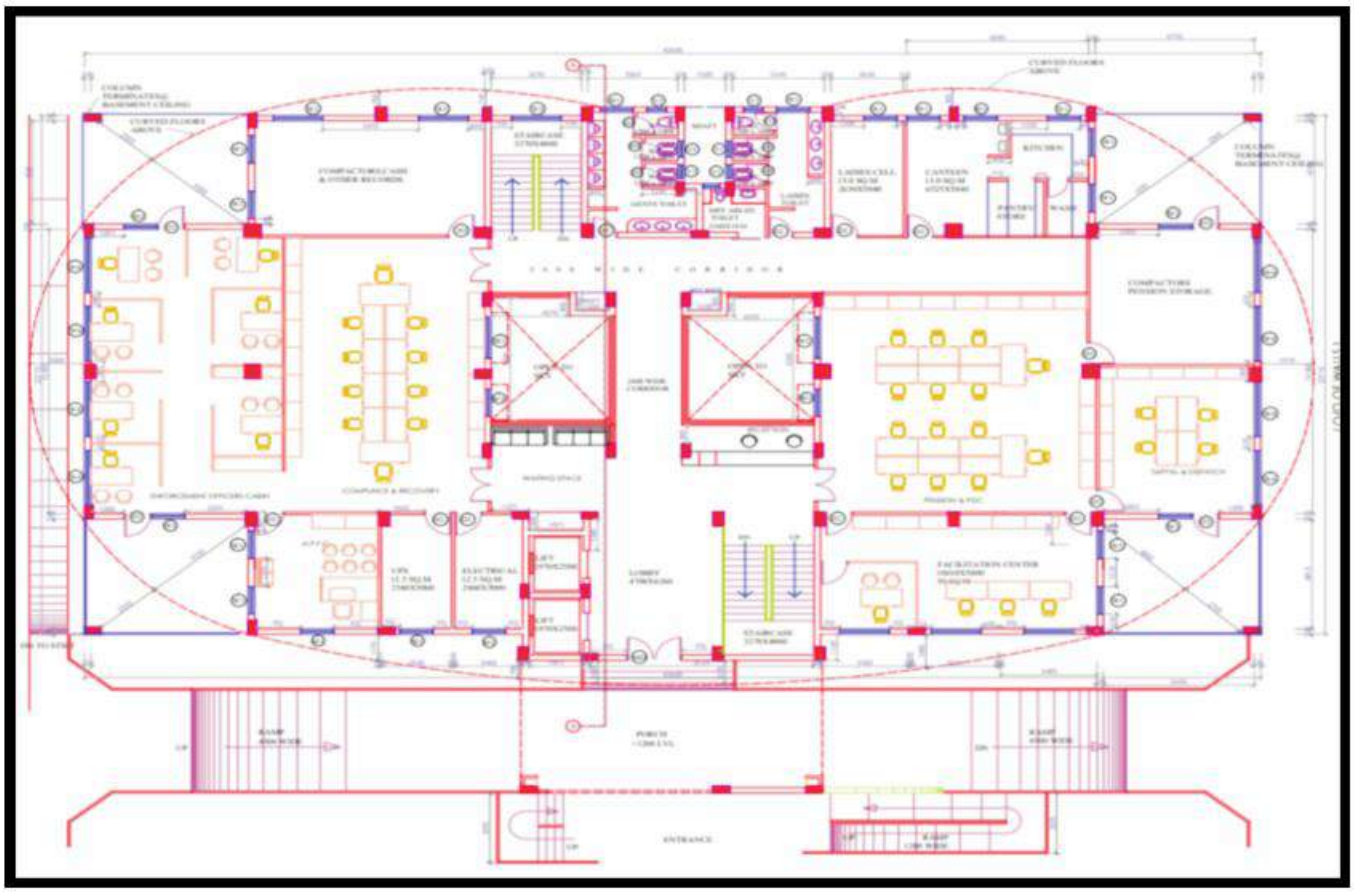
Area of the plot:
0.64 Acres

Total Built Up Area:
3407 Sqm

Number of Floors:
B + Ground + 2 Floors



Section Through OTS



Floor Plan

INCOME TAX OFFICE AND QUARTERS
ERODE, TAMIL NADU



Design Philosophy

The design of this building is such to obtain maximum natural energy in terms of light and ventilation.

The aesthetics of the building lies in it's simple geometric patterns and blocking.

The building is designed to achieve cost effective energy efficient initiatives with both passive and active system.

The structural glazed exterior with the use of subtle colour scheme makes the building subtle and pleasing.

The interiors of the building has adequate natural light, ventilation and large spans to achieve the efficiency of space utility.

Cost:
Rs 22.14 crores

Area of the plot:
1.02 Acres

Total Built Up Area:
5179 Sqm

Number of Floors:
Ground + 3 Floors



Front Elevation



Ground Floor Plan

HOSPITAL BUILDING OF SRI CHITRA THIRUNAL INSTITUTE FOR MEDICAL SCIENCE AND TECHNOLOGY
TRIVANDRUM



Cost:
Rs 450 Crore

Area of the plot:
Part of Campus

Total Built Up Area:
23687 Sqm

Number of Floors:
Ground + 7 Floors

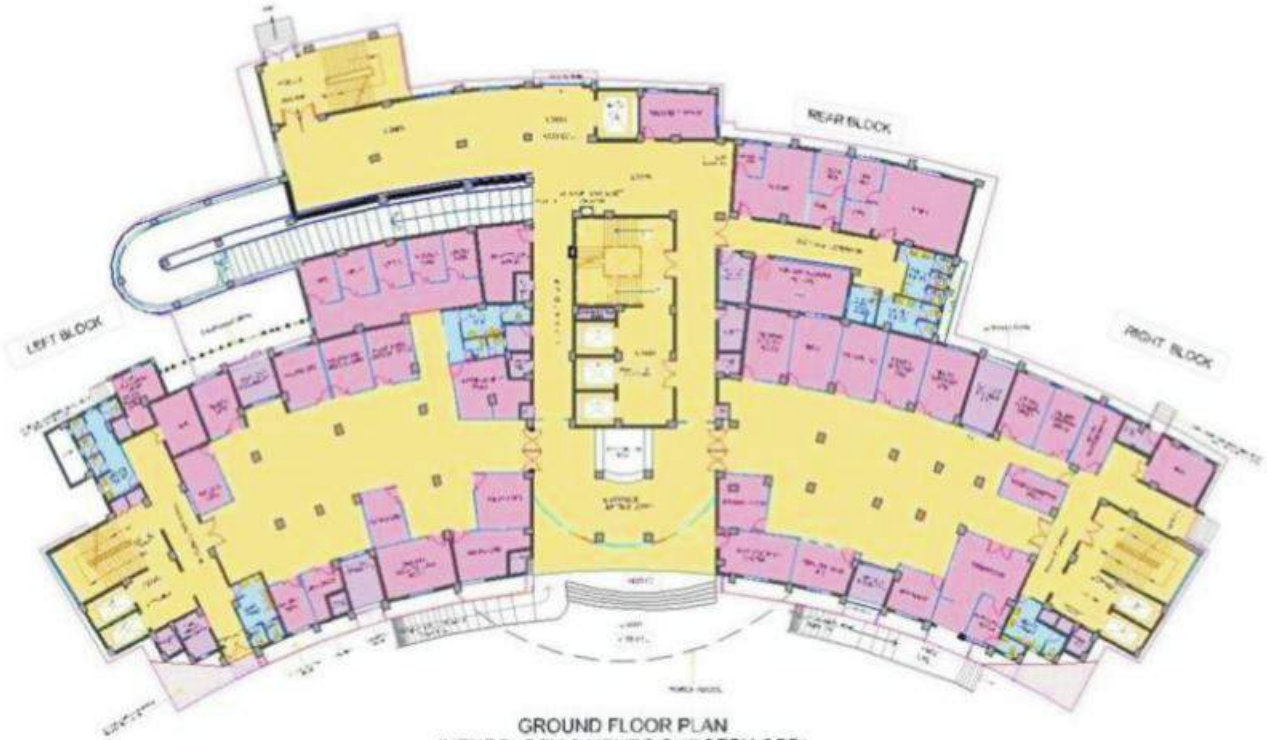
Design Philosophy

The building is designed as G+7 structure with circulation core in the centre and two wing on either sides. The outpatient services are provided on the ground floor where as operation theatres and ICU's of various specialties are provided on upper floors. The functional movements and connectivity between various departments has been taken care while developing the internal plans. The provision of operation theatre complex, ICU's and consultation complexes have been designed to give easy access and comfort to the patients as well as attendants.

Pay wards are provided on seventh floor for exclusivity and privacy. All services are contained in separate service block to facilitate the smooth functioning of the hospital. The building will have a separate skin in the front façade to screen the direct sunlight which also act as aesthetical façade feature



LAYOUT PLAN



GROUND FLOOR PLAN
(NEUROLOGY & NEURO SURGERY OPD)

GENERAL POOL RESIDENTIAL ACCOMMODATION (GPRA)

PLINTH AREA NORMS REVISION

Ministry of Housing and Urban affairs is the Nodal Ministry for providing houses under General Pool Residential Accommodation (GPRA) to be constructed for Central Govt. Employees all over India. GPRA norms and designs are prepared by CPWD Architects in consultation with MoHUA.

As per the MoUD OM. dated 25/08/1987, area of type quarter for type I (A) to type VI (E1) in sqm were as under:

Type	Area of Unit (Sq.Mt)	Staircase (Sq.Mt)	Balcony (Sq.Mt)	Parking(Cycle,scooter shed/garage) (Sq.Mt)
I	34	5	7.45	2.5
II	45	5	7.45	2.5
III	55.75	5	7.45	4.2
IV	83.6	5.5	7.8	4.2
V	139.35 +18.6 (servant)	6+4.5	9.85	20.9
VI	198+25 (servant)	6+4.5	11+5(servant)	20.9

Vide OM dated 18/04/2006; Plinth area norms for Type VII and VIII were fixed as under:

Type	Area of Unit (Sq.Mt)	Staircase (Sq.Mt)	Balcony (Sq.Mt)	Parking(Car garage) (Sq.Mt)
VII Bungalow	316 +80 (Staff Qtr)	12+13.5 (Staff Qtr)	22+15 (Staff Qtr)	41.80 (2 No.)
VIII Bungalow	418 +120 (Staff Qtr)	12+27 (Staff Qtr)	22+30 (Staff Qtr)	83.90 (4 No.)

Vide OM dated 11/12/2008, A special category Type IV special was created due to area being more than Type IV with following norms:

Type	Area of Unit (Sq.Mt)	Staircase (Sq.Mt)	Balcony (Sq.Mt)	Parking(Car garage) (Sq.Mt)
IV (Special)	111.48	6	8.52	1 car

Vide OM dated 16/09/2009 and 23/05/2012, Parking norms were relaxed as under:

Type I- 0.5 ECS/unit, Type II- 1 ECS/unit, Type III- 1.25 ECS/unit, Type IV & IV (Spl.)- 2 ECS/unit, Type V- 2 ECS/unit, Type VI- 3 ECS/unit, Type VII- 3 ECS/unit, Type VIII- 4 ECS/unit

Vide OM dated 22/03/2010, Percentage variation of 5% in plinth area was allowed for architectural planning / treatment in Type I to V against existing provision of 2% for Type I to III only. Further with changes in lifestyle, modern gadgets, mode of travel and scarcity of land need was felt to revise these norms. Vide OM dated 07/08/2013; the revised plinth area norms are as under:

Type	Area of Unit (Sq.Mt)	Staircase (Sq.Mt)	Balcony (Sq.Mt)	Utility Area/balcony (Sq.Mt)
I	40.8	7	6.5	2.5
II	54	7	6.5	2.5
III	63	7	6.5	3.5
IV	86 +17 (Servant Room)	7	12+2.5	3.5
IV (Special)	106 +17 (Servant Room)	7	12+2.5	3.5
V	145+21.5 (Servant Qtr.)	7+7	12+3.5	4.5
VI	203.5+21.5 (Servant Qtr.)	7+7	21.5+3.5	4.5
VII	287+21.5x2 (Servant Qtr.)	7+7	35+4	9
VIII	403+21.5x4 (Servant Qtr.)	7+3.5	45+4	12

Parking norms are as under:

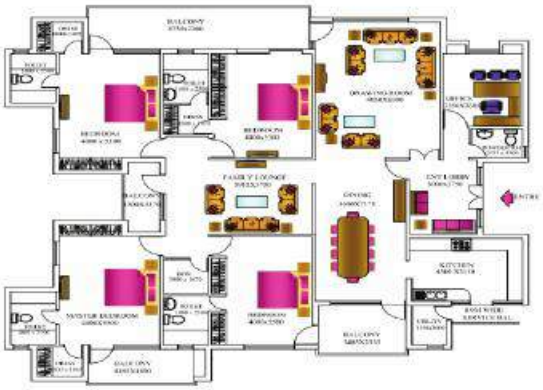
Type I- 0.5 ECS/unit, Type II- 1 ECS/unit, Type III- 1.25 ECS/unit, Type IV & IV (Spl.)- 2 ECS/unit, Type V- 2 ECS/unit, Type VI- 3 ECS/unit, Type VII- 3 ECS/unit, Type VIII- 4 ECS/unit

Depictive planning to show the scale of amenities in each type quarter are as under:



Type 8

(4 Bedrooms, Drawing cum Dining Room, Family Lounge, Kitchen, Office with Toilet, 4 Toilets, Store, Balcony)



Type 7

(4 Bedrooms,1 Drawing cum Dining Room, 1 Family Lounge, 1 Kitchen, 1 Office with Toilet, 4 Toilet, 1 Store, Balcony)



Type 6

(4 Bedrooms, Drawing Room, Dining Room, Kitchen, 4 Toilets, Store, Balcony, Servant Room)



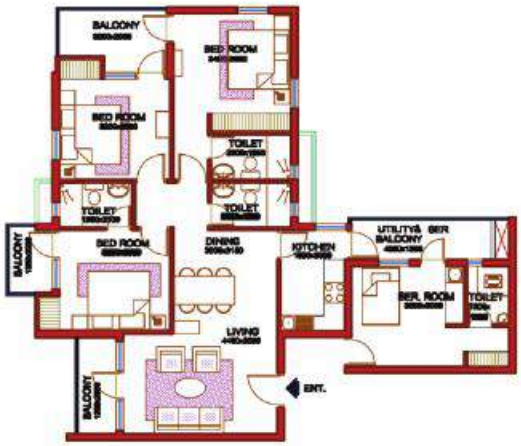
Type 5

(3 Bedrooms, Drawing/Living Room, Dining Room, Kitchen, 3 Toilets, Store, Balcony, Servant Room)



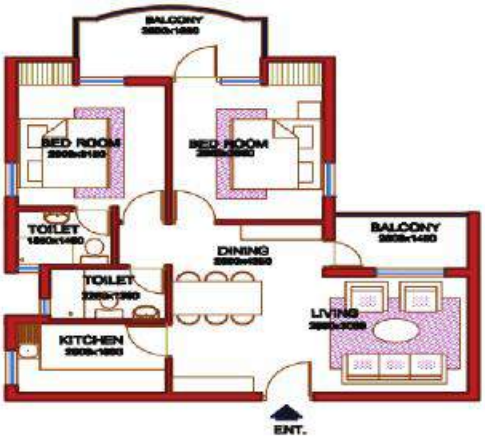
Type 4S

(3 Bedrooms, Drawing/Living Room, Dining Room, Kitchen, 2 Toilets, Balcony, Servant Room)



Type 4

(3 Bedrooms, Drawing/Living Room, Dining Room, Kitchen, 3 Toilets, Balcony, Servant Room)



Type 3

(2 Bedrooms, Drawing/Living Room, Dining Room, Kitchen, 2 Toilets, Balcony)



Type 2

(2 Bedrooms, Drawing cum Dining Room, Kitchen, 2 Toilets, Balcony)

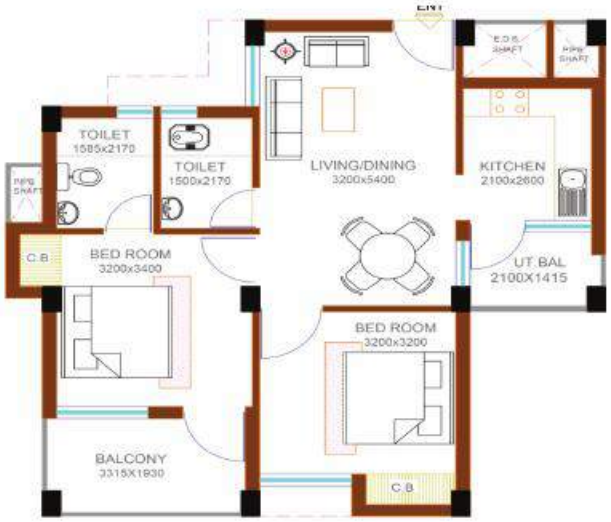
STANDARDISED CRPF ACCOMMODATION

CPWD Architects have prepared typical design of type quarters for CRPF campuses to be followed all over India. These typical designs have been prepared as per latest GPRA Plinth Area norms and have been approved by the competent Authority of CRPF Directorate.

The Chief Architects and Senior Architects can modify the typical designs in CRPF projects in their respective jurisdictions based on the prevailing site and climate conditions and local building Bye Laws.



Type 2
Main Unit Area: 54 SqM



Type 3
Main Unit Area: 63 SqM



Type 4
Main Unit Area: 86 SqM
Servant Room:17 SqM



Type 5
Main Unit Area: 145 SqM
Servant Room:21.50 SqM

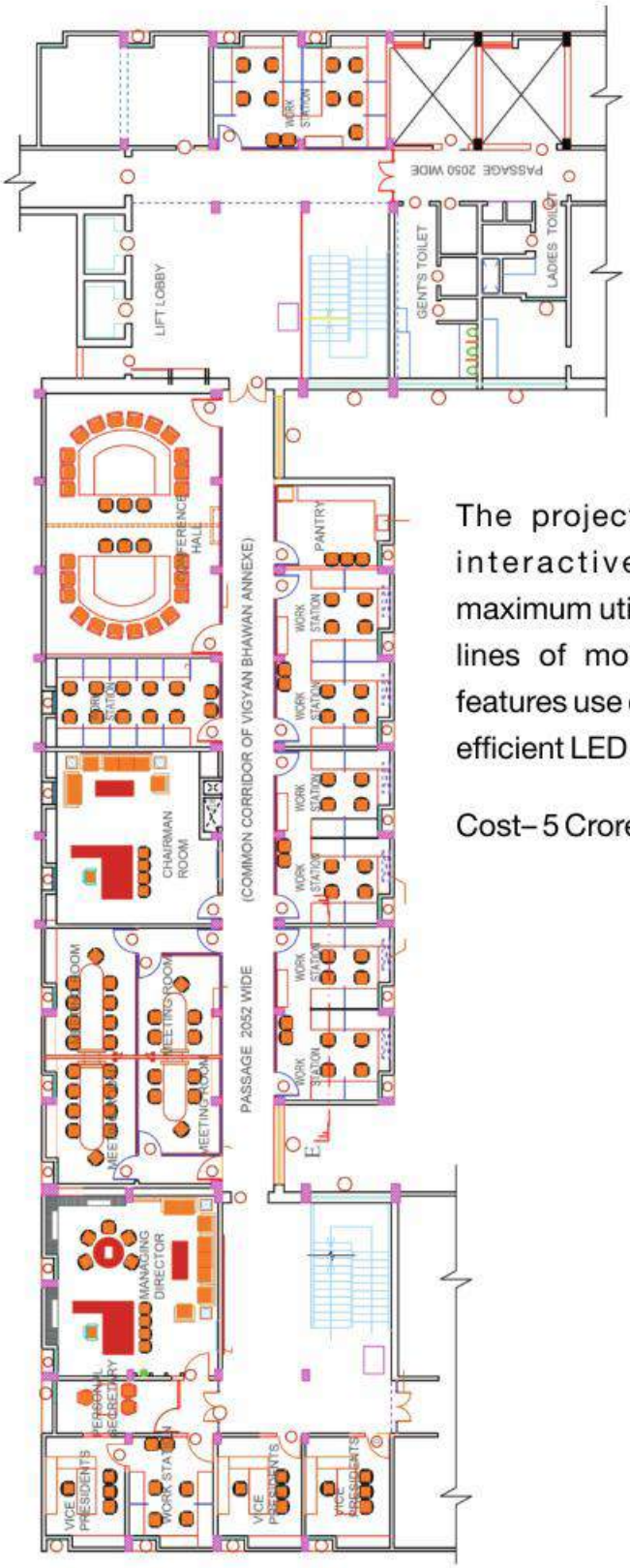


CPWD


Interior &
Landscape
Design
Projects

RENOVATION AND REMODELING OF ROOMS FOR INVEST INDIA

VIGYAN BHAWAN, NEW DELHI



The project feature a maximum interactive office space with maximum utilization of each space on lines of modern office systems. It features use of maximum visibility and efficient LED lighting.

Cost– 5 Crore



Interior view of MD Room

Features: Modular furniture (in-house designed), LED lighting with false ceiling, Carpet tile flooring, Laminated Ply board based wall cladding, Full Height Interior Glass Partition



Interior view of Corridor



Interior view of Meeting room



Interior view of Conference room

INTERIORS / REFURBISHING FOR THE OFFICE OF CGA AT E-BLOCK (G+4)

GPOA, INA, NEW DELHI



View of Reception

Design Philosophy

The building is designed to house the office of Controller General of Accounts. During the course of designing the client had laid out following requirements-

- Segregation of spaces for Senior Officers from public offices
- Well designated spaces for varied office activities.
- Maximum space utilization
- Modern design while retaining the essence of public building
- Best utilization of available elements/ materials at site

While designing the building, utmost care was given to ensure that all the above points are taken care of in the final outcome.

To this effect the placement of offices has been done in the order of hierarchy with the CGA occupying an office space on fourth floor to ACGA chambers being placed on ground floor. Such provision avoid any heavy footfall/ lack of privacy for the Senior officials.

All the offices spaces have been such designed so that there is minimum generation of negative spaces with adequate space given to each office activity/ officer as per the dictated norms.



CGA chamber

Showing dynamic approach towards design with the use of digital printing on glass partitions and mural works which not only carry certain messages but also make them eye catching.



Part of Reception lobby displaying sculpture

Space showing sculpture of Yaksh-Yakshni and Kuber Yantra over glass has been created in Entrance Lobby/ Reception Area to highlight the function of CGA office- care taker of finances for Government of India.



Additional CGA chamber

The form and furnishing selected for furniture are very contemporary in style and color with individual design for each type of space.



Additional CGA chamber

Wall treatment done in accordance with design details consists of Emulsion Paint, Texture Paint, High Pressure Laminate Panelling, Prelaminated Boards and Digitally Printed Glass walls.



Conference room

Harmonic relation between the flooring, and false ceiling and furniture with strategically designed lighting to enhance functional utilization of space



Canteen

Blend of contemporary and indigenous style and design forms with contrasting character has been used in recreational and informal spaces to create a feel of change



Meeting room

Light colored paneling has been used to improve lux level, to create a soft and sublime atmosphere and to reduce the maintenance aspects of internal areas.



Library

LED lights have been used in the False ceiling design to reduce energy consumption.

LANDSCAPE OF PARKS ON DDU MARG
NEW DELHI



Park at pocket 3 A—Based on the geography of cosmos 'mandalas' where a series of terraces lead to the mandala. The park has facilities for walking jogging, meditation, yoga, and play area beside essential public services.

Area of Park at pocket 6 B, 2.13 Acre









Park at pocket 6 B – based on Buddhist symbol of purity of body, speech and mind i.e. lotus.

Area of Park at pocket 3 A, 8.72 Acre



Park at pocket 7 A - based on the concept of rashis, where 12 triangles are positioned around the existing statue with each triangle representing 1 rashi and has plantation associated with it.

Area of Park at pocket 7 A, 6.55 Acre

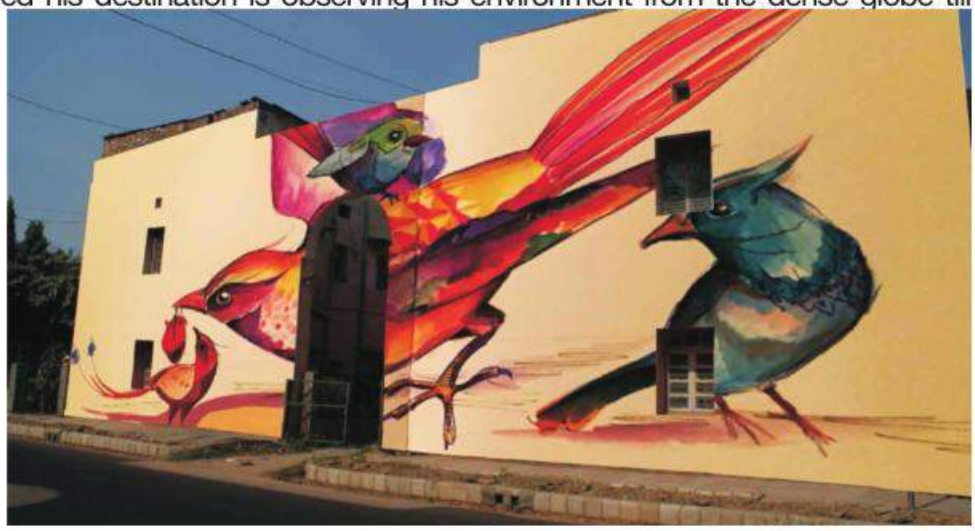
STREET ART
LODHI COLONY, NEW DELHI

India's first open air public art district came into being under the partnership of Central public Works Department and the Ministry of Home Affairs. The Lodhi Art District project aimed to work with the community and government bodies to use public art to enhance the visual identity and environment of the precinct, encourage maintenance of the neighborhood and build a sense of community pride.

The aim of this project is to use Art as a medium of change to spread the message of Swachh Bharat in a unique way. This will be a new approach to Swachh Bharat by transforming spaces into beautiful works of art with the direct involvement of the community.



An astronaut having achieved his destination is observing his environment-from the dense globe till its more pure elements



Art depicts the Indian national bird, Peacock, with its feather enclosing the Architecture of the building





Hands (characteristic style of the artist), merged with an intricate greenery, an important element of Lodi colony and its surrounding

A reflection on the concept of time and the power of creation, using A fusion of Warli and Mandala with contemporary Art





CPWD

Other Activities Of Architectural Wing



Mr. Vinay Kumar, Deputy Architect, Dehradun has been actively participating in competitive Marathons/ Races regularly. Recently He participated in Gail Dehradun Marathon 2018, organized by Uttrakhand Police Department and on the theme of "Run against Drugs". He participated in 21km (Male) category and was awarded with completion medal



Mr. Yogendra Pal Singh Yadav, Deputy Architect has represented Badminton Team, Ministry of Housing and Urban Affairs in Inter-ministry Badminton Tournament 2017-18 held at New Delhi.

LOGO DESIGN
NATIONAL CPWD ACADEMY



Yogendra Pal Singh Yadav

An organization wide design competition was held for the designing of the logo of the National CPWD Academy in the month of December 2018. Multiple entries were received, the entry of Mr. Yogendra Pal Singh Yadav (Dy. Architect) was adjudged as the best entry aligning with the essential role of the Academy. This was further deliberated in-house and some modifications were made in the design. The final design of the logo was approved by the Director General (Planning) on 25-03-2019.

Design Concept

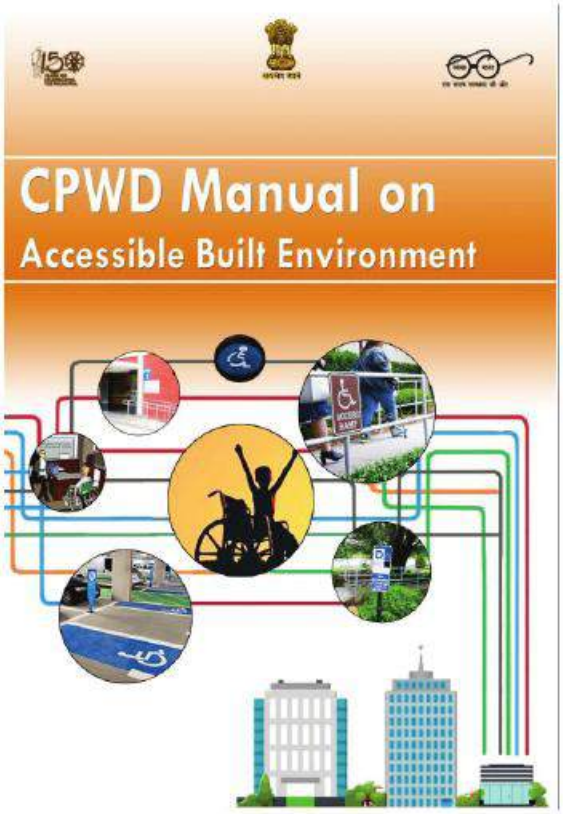
The design and color scheme are derived from the logo of the parent organization, CPWD. The Empowered Hands (of the employees), holding the Book which represent knowledge, and the Green circle with Arrows represent the cyclic/continuous process of attaining knowledge and skill.

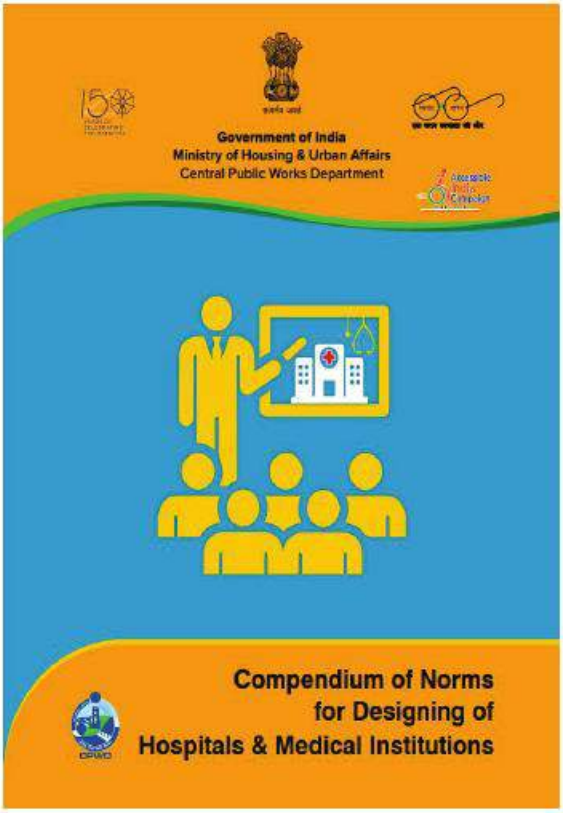
The Shloka **'विद्या वितर्को विज्ञानं'** is taken from Chapter 9, Shloka 21 of the 'Charaka Samhita' which translates to "Right Knowledge (Vidya), Rationality (Vitarko) and Science (Vigyanam)" which are the essential attributes for effective learning.

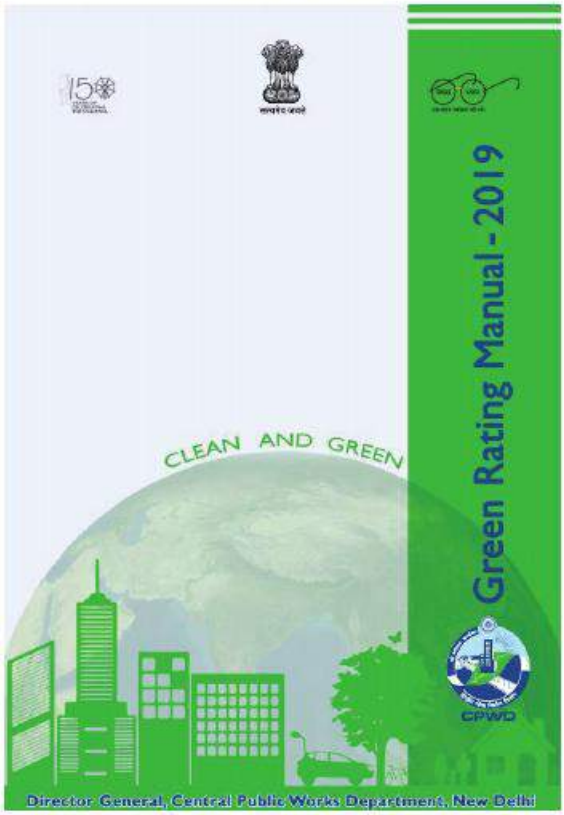
The State Emblem of India prominent on the top of the logo depicts the National CPWD Academy as a National Resource Institute duly recognized as a Centre of Excellence for learning in their domain of works.

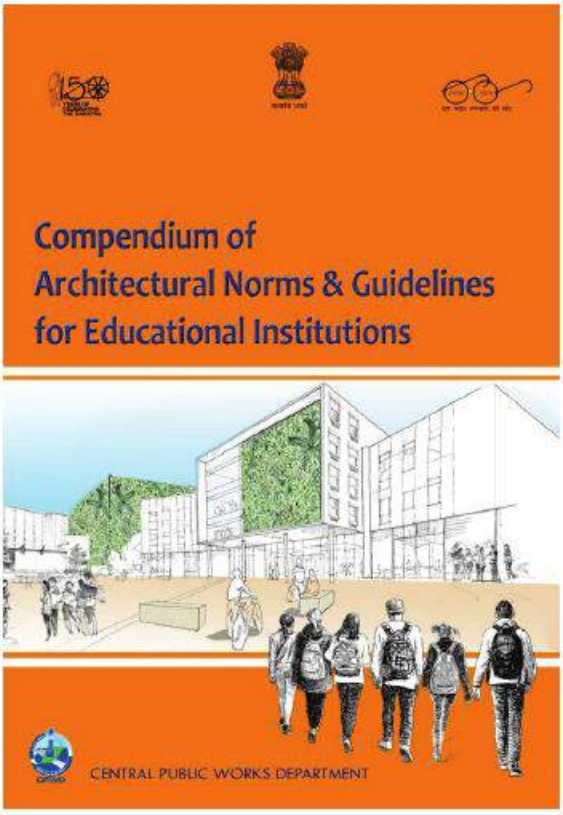
This logo represents the essential goal of the National CPWD Academy i.e. imparting knowledge, scientific aptitude and rational attitude to CPWD officials to hone their skills and competence for the workplace.

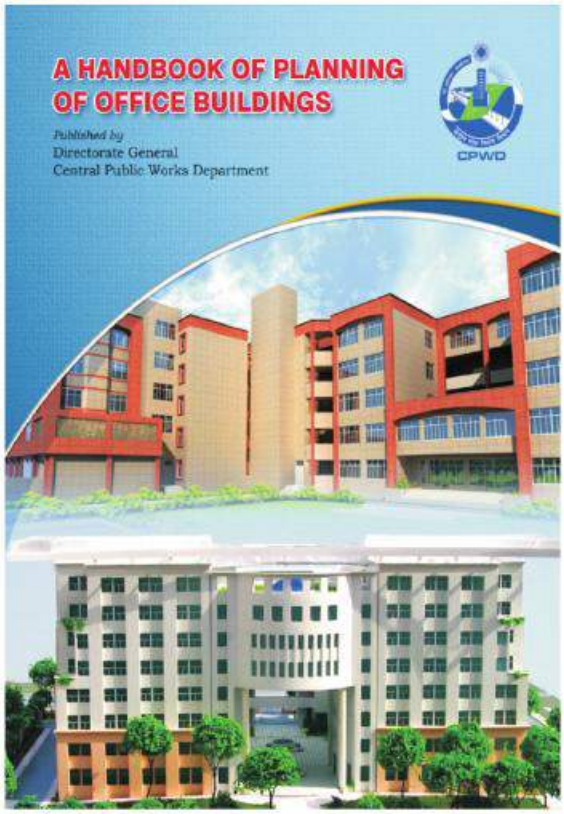
CONTRIBUTION OF ARCHITECTS IN PUBLICATIONS

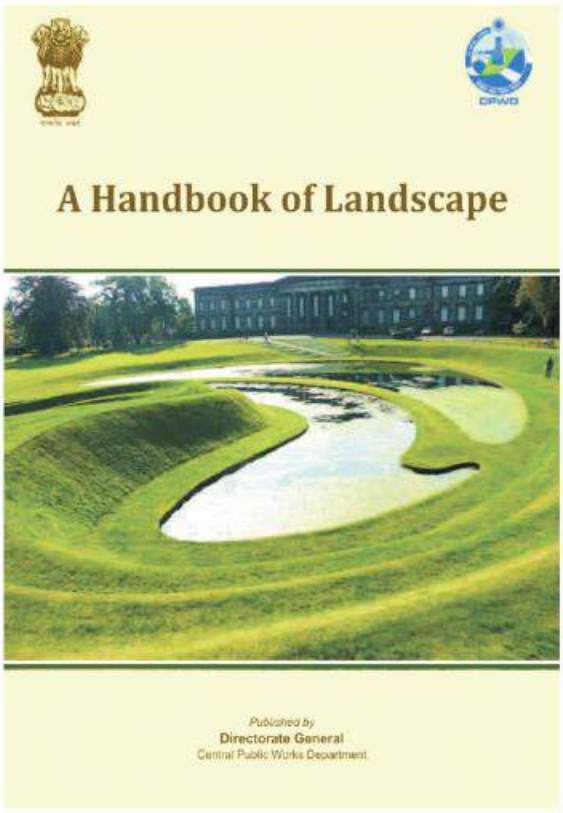


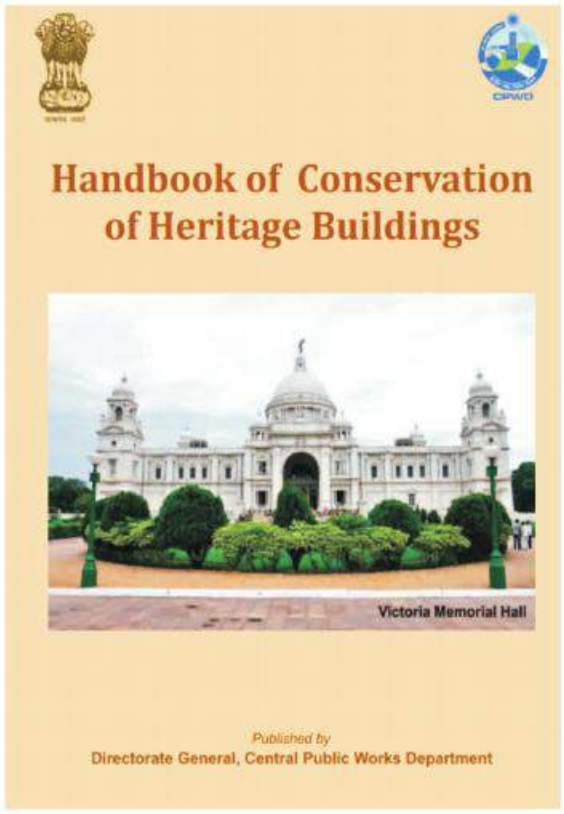


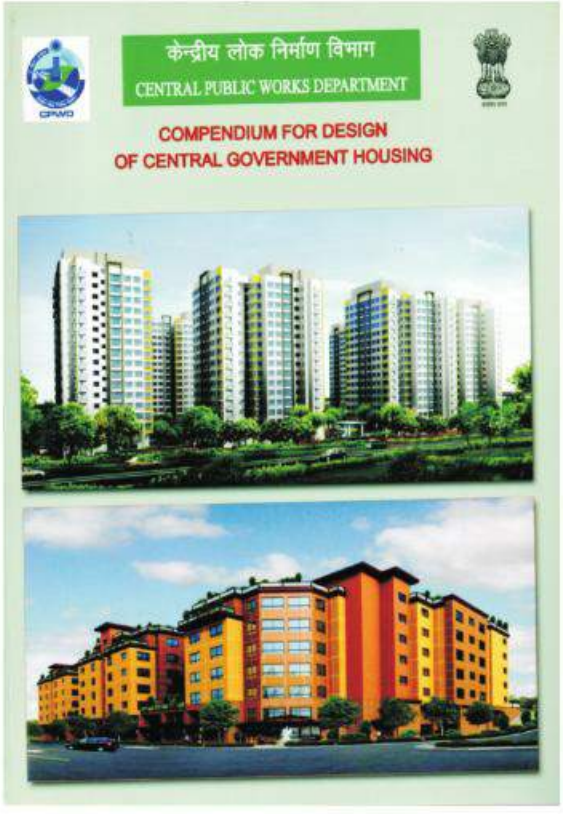




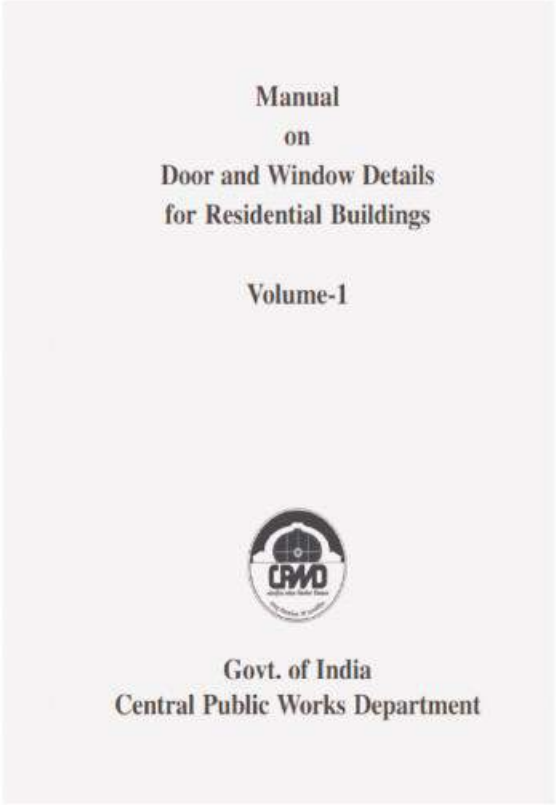

A HANDBOOK OF PLANNING
OF OFFICE BUILDINGS
Published by
Directorate General
Central Public Works Department
CPWD

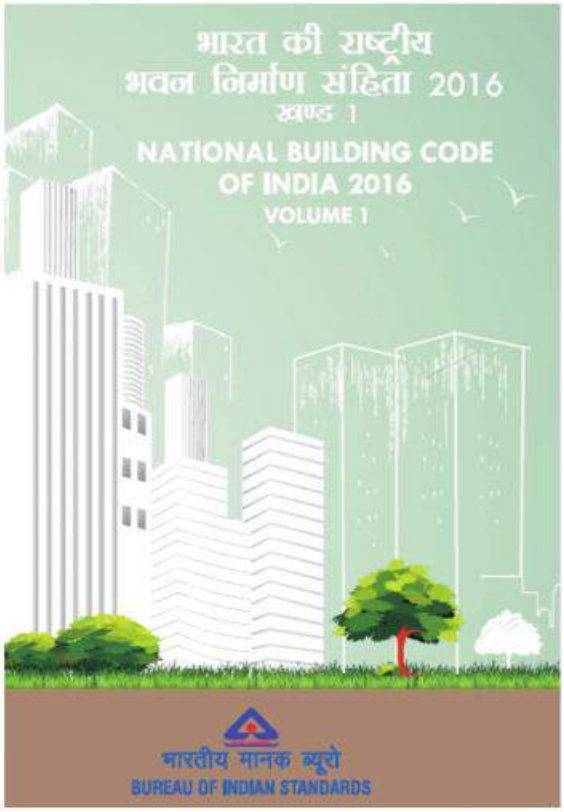

A Handbook of Landscape
Published by
Directorate General
Central Public Works Department

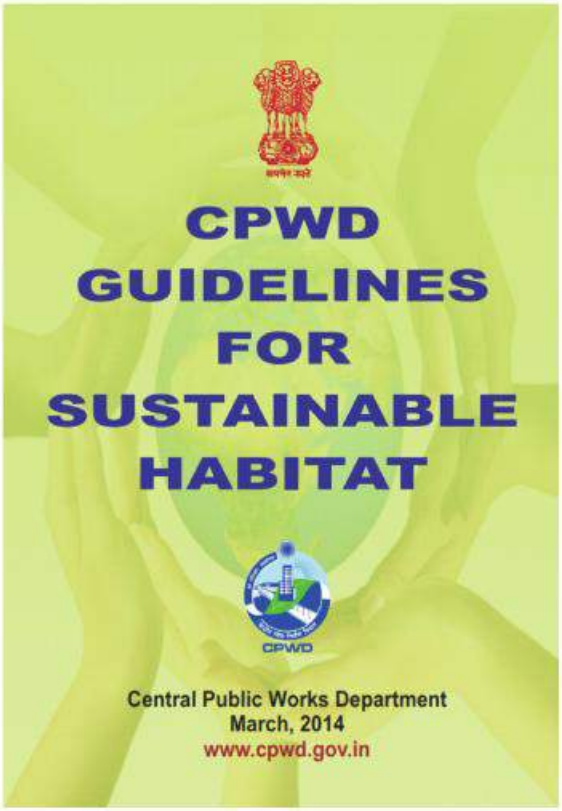

Handbook of Conservation
of Heritage Buildings
Victoria Memorial Hall
Published by
Directorate General, Central Public Works Department


केन्द्रीय लोक निर्माण विभाग
CENTRAL PUBLIC WORKS DEPARTMENT
COMPENDIUM FOR DESIGN
OF CENTRAL GOVERNMENT HOUSING


HARMONISED GUIDELINES AND
SPACE STANDARDS FOR
BARRIER FREE BUILT ENVIRONMENT
FOR PERSONS WITH DISABILITY
AND ELDERLY PERSONS
FEBRUARY, 2016
Braille
Government of India
MINISTRY OF URBAN DEVELOPMENT


Manual
on
Door and Window Details
for Residential Buildings
Volume-1
CPWD
Govt. of India
Central Public Works Department


भारत की राष्ट्रीय
भवन निर्माण संहिता 2016
खण्ड 1
NATIONAL BUILDING CODE
OF INDIA 2016
VOLUME 1
भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS


CPWD
GUIDELINES
FOR
SUSTAINABLE
HABITAT
CPWD
Central Public Works Department
March, 2014
www.cpwd.gov.in

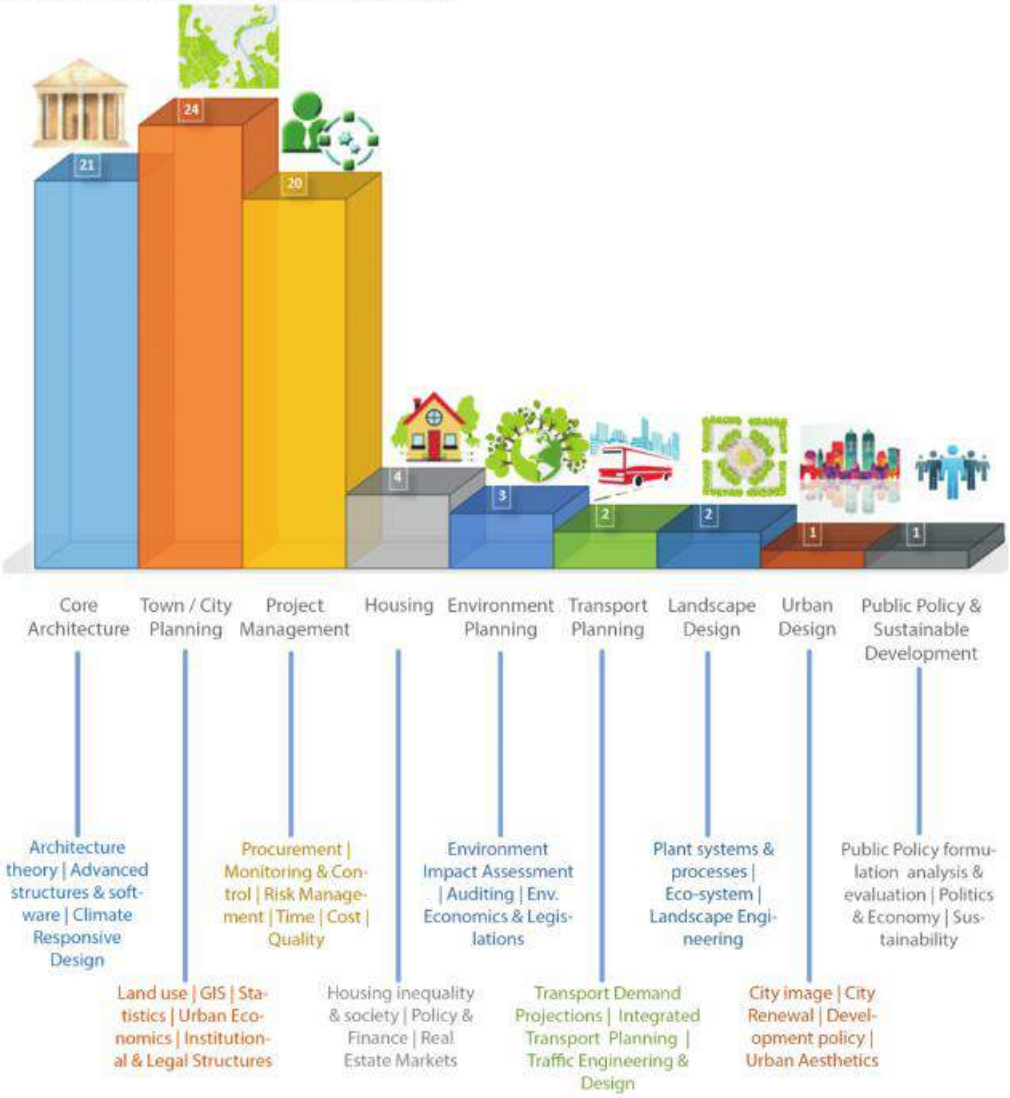

Specialized
Human
Resource In
Architectural
wing

SPECIALIZED HUMAN RESOURCE IN ARCHITECTURAL WING

In this era of globalization and specialization, it is important to have dedicated workforce that is specialized in varied fields of their profession for delivering state-of-the-art projects.

Architecture is a vast profession that comprises of specific fields such as Urban Design, Town planning, Landscape Architecture, Housing, Project Management etc. Presently, 78 officers of the Central Architects Cadre, CPWD are specialized in various fields of Architecture. They have completed their specializations from reputed institutes like School of Planning and Architecture - Delhi, IITs, NITs etc. This has greatly improvised the quality of work produced by the Architecture-wing of CPWD.

The number of officers, in the Central Architects Cadre, who have successfully completed their specialization in the specific fields are shown in the graphic. The details of these officers and their specializations are elaborated subsequently.



Ph.D



Sonia Mehta

Dr. Sonia Mehta, has done Ph.D on "An Inquiry into the Progress of Barrier Free Built Environment - Case Study of Two Metro Cities" namely Ahmadabad and Mumbai.

Under the guidance of Smt. Tripta Khurana, Chief Architect, DMRC, she has done the Ph. D from CEPT Ahmadabad in 2012

PROJECT MANAGEMENT



T S Vivekananda



Subrata Maitra



Ajay Keshav



K. Sudha



J S Gaikwad



Rajesh Singh



Dharmendra



Siva S



Tousheef Rashid



Deepali Mishra



Yogendra Pal Singh



Abhishek Chandra

M.TECH.



Tirunagari



Vinay Kumar



Aakriti Verma



Manish Gupta



Abhishek Kumar

URBAN AND REGIONAL PLANNERS


Ujjwal Kumar Pal


Biswajit Bose


Sulaiman Abdul


Arun Kumar Tyagi


Shaik Khader Basha


Arunima


Naveen Bhatnagar


Aveek Banerjee


Ashutosh Sahu


Sreenivas Gujjari


K. Chandrashekhar


Namita Nitesh


Chandan Khatua


Ashu Chaudhary


Vrushali Rajesh


Kirti Gupta


Sujaya Kashyap


Vivit Vedaraj N


Vishal Jaiswal


Gem George Jacob


Neeraj Kumar


Preeti Roy


Brujbhanu


Soumajyoti Das


Shahna Shamim

M. ARCH.


Indu G. Chaudhary


Bratati Ghosh


Abhishek Bose


Manjula Inian


Shibashish Ch


Dhurbadas Sen


Shailja U Sakharkar


Debarati


Charu Sengar


Purnendu P Pathak


Mohini A Rehpade


Mitali Saikia


Praveen Kumar


Akansha Agrawal


Sourodip Lahiri


Nancy


Ajesh Kapoor


Irfan Haider Khan


Kamal Passi


Gaurav Sarswat


Kumar Raushan

TRANSPORTATION ENVIRONMENTAL PLANNING



Abhijeet Vardhan



Nikhil Soni



Rajat Rashmi Goel



Arun Jeph



Swati Talwar

LANDSCAPE



Biswajit Roy



Renu Bhutani

HOUSING



Ruby Nee Kaushal



Goutam Patel



Ruchi Prasad

OTHERS



Usha Batra
(MA – PPSD)



Sanjay Kumar Sahu
(PGPPM)



Pallavi Madaan
(MBA- Real Estate)

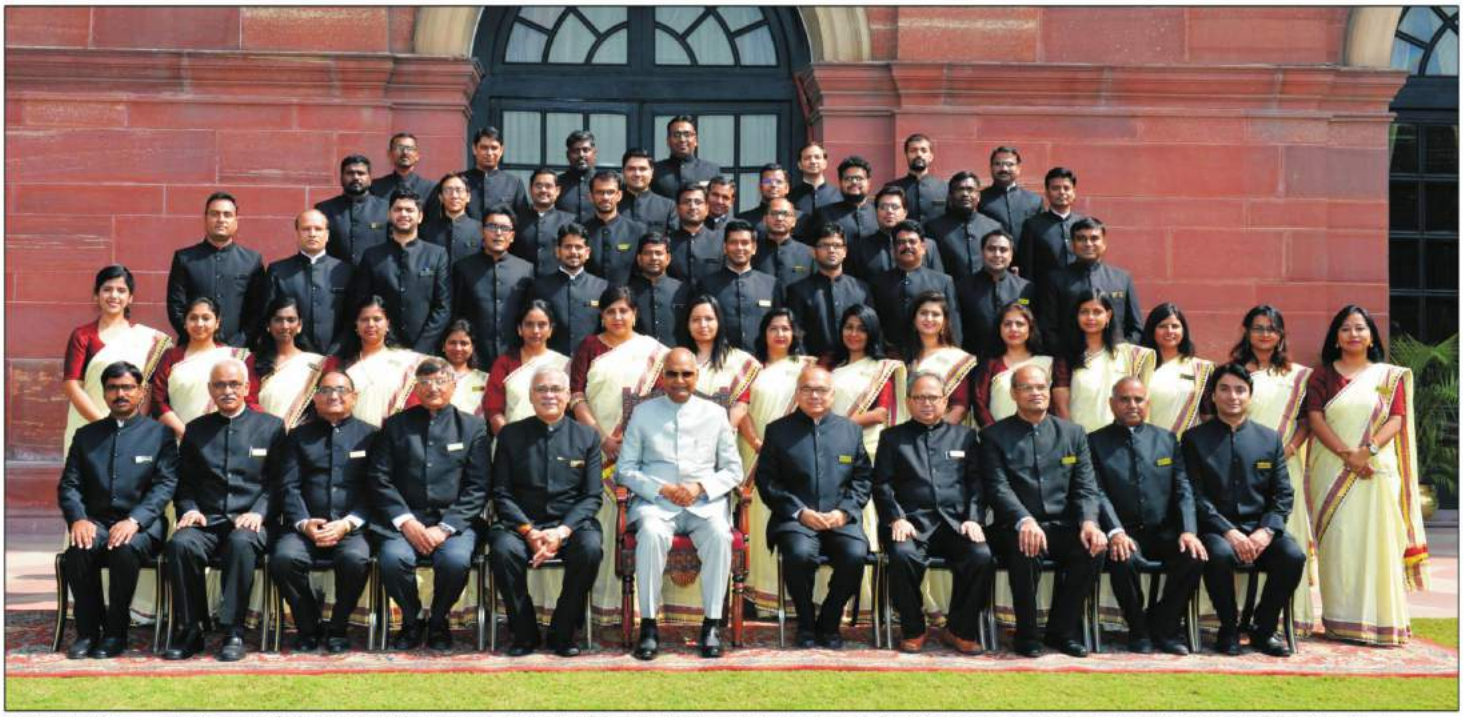


V. Vanumukil
(MBA)


Flage bearers
of
Architectural
wing

CENTRAL PUBLIC WORKS DEPARTMENT, GOVERNMENT OF INDIA

The President of India, Hon'ble Shri Ram Nath Kovind with Probationary Deputy Architects at Rashtrapati Bhavan on October 15, 2018.



Sitting in 1st Row: Upendra K. Singh (EE), M.K. Sharma (CE, Training), Piyush Dave (CA, Training),Sh. Ravindra Kumar Thathu (Director General-Planning), Sh. Durga Shanker Mishra (Secretary , Min. of Housing & Urban Affairs), Sh. Ram Nath Kovind (Honourable President of India), Sh. Prabhakar Singh ((Director General, CPWD), Karam Vir Singh (ADG, Training), Rajesh Jain (CE, Training), P. P. Singh (EE), Touseef Rashid makroo (Dy. Arch.)

Standing in 2nd Row: Deepali Mishra, Akanksha Agrawal, Maheshwari Jayaraman, Valli Essaki, Nidhi Gupta, Thenmozhi K., Mohini A Rehpade, Sujaya Kashyap, Neeti, MVSN Kanaka Suseela, Pallavi Madan, Vidhi Prakash, Shailja U Sakharkar, Charu Sengar, Priyanka Kumari, Mitali Saikia

Standing in 3rd Row: Dharmendra Gautam, Kamal S Patel, Pranav Pandey, Bheeshma Mali, Yogendra Pal Singh Yadav, Vikash Ranjan, Vishal Jaiswal, Irafan Malik, A.Singaravelan, Pushpraj Kashyap, Robin Gautam

Standing in 4th Row: Ravi Sridhar, Davis Kime, Goutam Patel, Gem George Jacob, Chaitanya V.S., Anurag Singh Gangwar, Arun Jeph, Dhanabalan C., Sarvesh Anand

Standing in 5th Row: Siva S., Purnendu Prakash Pathak, Vivit Samuel Vedraj N., Sachin Sharma, Abhilash Kiran, TVN Siva Gopi, Vinay Kumar, Abhishek Gwaskoti, Praveen Kumar, Jay Shankar Prasad Pandey, Dinesh Kumar Sahu

MDI GURGAON | Management Development Institute

Management Development Programme on
Higher Management & Contract Management
For Senior Architects Of CPWD
May 20 - 31, 2019; MDI Campus, Gurgaon



Sitting Row (L to R) (Prof./Dr./Mr./Ms.) : Rahul Verma, K. Sudha, Niva Bhandari (Programme Director), Anil Anand Pathak (Programme Director), Rajat Rashmi, Ritu Kapila,
Standing Row (L to R) (Prof./Dr./Mr./Ms.) : Indrajit Sen, D.V. Ramana Rao, Shomnath Adhikary, Maruthi Kalgi, Sunil Sehgal, Pradeep Kumar, Ravindra Kumar Sinha,

CPWD Training Institute, Ghaziabad

16 Week Foundation Training Programme for Dy. Architects of Batch 2015 by Chief Architect (Trg. Cum R&D) Unit

01 June to 18 September, 2015



Standing Ist. Row : Ar. Shailaja, Ar. Thenmozhi, Ar. Maheshwari, Ar. Pallavi, Ar. Nidhi, Ar. Neeti, Sangeeta Mathur (TO), Ar. Susheela, Shashi Bala Tiwari (CA-Trg), Rajesh Kumar(Ar-Trg), Ar. Valli, Ar. Charu, Ar. Vidhi, Ar. Priyanka, Ar. Kiruba, Ar. Mohini, Ar. Sujaya, Ar. Neetu.

Standing IInd Row : Ar. Abhilash, Ar. Chaitanya, Ar. Anurag, Ar. Gautam, Ar. Davis, Ar. Vishal, Ar. T. V. N. Siva Gopi, Ar. Dinesh, Ar. Dhanabalan, Ar. Siva S., Ar. P. P. Pathak, Ar.Dharmendra, Ar. Robin, Ar. Vivit, Ar. Pushpraj, Ar. Sachin, Ar. Sarvesh, Ar. Sridhar.

National CPWD Academy, Ghaziabad

Foundation Training Course for Dy. Architect and Special Training Course for Asstt. Architects - A Session on Planning of CAPF Works Held on 28-04-2017



Standing Ist Row : Mitali Saikai Dy. Arch, Kavita Chopra TO(Trg), Sunil Gosain Dy. Comdt. (Arch), Harish Chandra Ex. Comdt(Arch), Deepak Gupta ADG(Trg), U.K. Pal CA(Trg), Dhirendra Saini Insp(Arch), Sangeeta Mathur TO(Trg), G. Kiruba Dy. Arch, M. Sevega (Dy. Arch).

Standing IInd Row : Irafan Malik (Dy. Arch), Arun Jeph (Dy. Arch), Nazera Mohiddin (Dy. Arch), Aakanksha Agrawal (Dy. Arch), Deepali Mishra (Dy. Arch), Vivek Kumar Chenna (Asstt. Arch), Vikash Ranjan (Dy. Arch), Yogendra Pal Singh Yadav (Dy. Arch), Ruchi Prasad (Asstt. Arch), Veronica N.K.H. Mate (Asstt. Arch).

Standing IIIrd Row : Nikhil Soni (Asstt. Arch), Pranav Kr. Pandey (Dy. Arch), Nirosh Kumar (Asstt. Arch), Praveen Kumar (Dy. Arch), Ashok Kr. Maurya (Asstt. Arch). Vinay Kumar (Dy. Arch), Touseef Rashid Makroo (Dy. Arch), Jai Shankar Prasad Pandey (Dy. Arch),

Standing IVth Row : Bruj Bhanu Chandrawanshi (Asstt. Arch), Kamal Sindhu Patel (Dy. Arch), Soumajyoti Das (Asstt. Arch), Abhishek Kumar (Asstt. Arch), A. Singarvelan (Dy. Arch), Bheeshma Sanjay Mali (Dy. Arch), Gem George Jacob (Dy. Arch).

National CPWD Academy, Ghaziabad
Training on 8 Weeks Foundation Course for Asstt. Architects
05 March to 27 April, 2018



SITTING Row : Rajesh Kumar (Course Coordinator); D. Roy Choudhary (Faculty); Karam Vir Singh, ADG(Trg); Piyush Dave, CA(Trg.);
STANDING Ist. Row : Preeti Roy; Aiswarya M.; Nancy; V. Vanmukil; Aakriti Verma; Shahna Shamim; Ajesh Kumar Kapoor; Gowrisankar A.; Kumar Raushan; Manish Gupta.
STANDING IInd. Row : Monika Verma; Kavita Chopra; Swati Talwar; Sourodip Lahiri; Mohammad Tariq Umar; Atseituo Kechu; Gaurav Sarswat; Nishant Shankar Bhagat; Abhishek Chandra;
STANDING IIIrd. Row : Irfan Haider Khan; Neeraj Kumar; Kamal Passi; Deepak Kumar; Virat Singh.

National CPWD Academy, Ghaziabad
Special Foundation Training for Asstt. (AD)
06 May to 14 June, 2019 (6 Weeks)



Sitting Row : Satish Sharma (Faculty), M. K. Sgarma, ADG(Trg.), Piyush Dave, CA(Trg.)
Standing Ist Row : Kavita Chopra, TO(Trg), Syed Mohd Saad, Vishwajeet Kumar Vidyarthee, Babita Shaw, Mampi Das, Chetna, Fazal Krim, Sachin Pal, Hiranmoy Bhabak, Rashmi Paliwal, TO(Trg.).
Standing IInd Row : Mohd. Daud Ansari, Akash Shag, Shivesha, Amit Kumar, Maroof Ahmad, Ajit Kumar, Arvind Kr. Prajapati, Amarjeet Yadav.
Standing IIIrd Row : Sudipta Bhawal, Ankit Sharma, Bhawani Singh Gurjar, Brahm Pal Singh, Dilip Kumar, Mohit Kumar Saxena, Gopal.
Standing IVth Row : Manti Chakraborty, Tapash Kalita, Dalip Kumar, Satish Ojha, Bharat Kr. Meena, Kamal Karmakar, Manvendra Pratap Singh, Ankesh Saini, Dharmendra Kumar Mathur, Rajesh Kumar Gupta.


सत्यमेव जयते
Government of India
Ministry of Housing & Urban Affairs
Central Public Works Department