

SEMINAR II

# CAMPUS PLANNING OF ASA UNIVERSITY OF BANGLADESH

**SUBMITTED BY**

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# CHAPTER 1: INTRODUCTION

## 1.1 PROJECT BRIEF

**TITLE:** Campus Planning of ASA University of Bangladesh.

**LOCATION:** Ashutia Thana, Mogdom Ali Road, Dhaka. (Adjacent To Uttara 3<sup>rd</sup> Phase)

**SITE AREA:** 3.4 Acre

**CLIENT:** ASA Bangladesh

(ASAUB Registrar, Personal communication, February 2<sup>ND</sup>, 2018 )

## 1.2 PROJECT BACKGROUND

ASA Bangladesh is a non-profit organization, renowned to be the first microfinance organization of Bangladesh. They work for social advancement. Out of many social development plans is their education plan. ASA University started their journey in order to make private university education slightly more affordable for everyone. (ASA, 2017, Annual Report 2016-17). However, the government of Bangladesh along with the UGC have set out certain strategies to cope with the growing demand of good education, one of them being the requirement of a private university's own campus. (The UGC of Bangladesh, 2016, UGC Profile)

Although many private universities have already moved in to their permanent campuses, ASA University Bangladesh is still working on their ways. **ASA University of Bangladesh (ASAUB)** is currently planning on establishing their permanent campus in Ashutia Thana, Dhaka. (ASAUB Registrar, Personal communication, February 2<sup>ND</sup>, 2018 )

### **1.3 PROJECT RATIONAL**

University is a place for me I can connect myself with after studying for 5 years. I can relate to what a student and learning environment . Firstly, challenges like creating space within limited resources and area are always interesting which are existing in this project. Secondly, there is lot to explore in order to build a “Well-designed campus” which will be discussed elaborately in this paper. Lastly, in the professional world of experience is a big issue. The site is in a residential area and the site has limitation and many real world challengers, but has good site condition. This gives great scope of designing in order to develop professional skill as in reality sites will always have many limitations. Last but not the least, this project shall accommodate all the current departments and also include a recreational functions like indoor games, swimming pool, and gymnasium, A Student centre and research-learning centers. The study will begin with site and program analysis followed by concept derivation which will transform itself into a formal expression through volumetric studies. Ultimately this study will be a walk through the process and outcome of designing ASAUB permanent campus.

### **1.4 AIMS AND OBJECTIVE**

Aim of these project in to create learning environment for people This project shall create opportunities and facilities for the students to perform for the brighter future. Based on site area and condition, ASAUB campus will be a compact campus. The goal is to provide all basic and advanced amenities needed in a campus within whatever limitation and challenges the project offers. Along with an enhanced learning environment, the design should enable campus to be responsive to its site and community as well as incorporate sustainability in it.

## **CHAPTER 2: LITERATURE REVIEW**

### **2.1 EDUCATION**

Knowledge is power, information is liberating. Education is the premise of progress, in every society, in every family. (Annan. K, 2017, Financial Times)

Education is the process, by which we facilitate our learning, and gain knowledge, which in turn makes us grow as human beings. Education is what makes us civilized. (Robinson. S.K, 2006, TED Talk)

Individual purposes for pursuing education can be different. Understanding the goals and means of educational socialization processes may also differ according to the sociological paradigm used. At the beginning education generally was focused around developing basic interpersonal communication and literacy skills. This made the foundation for more complex skills and subjects. Later, education usually turned toward gaining the knowledge and skills needed to create value and establish a livelihood. Education is perceived as the place where children can develop according to their unique needs and potentials. Education is a space that enables the learners to open up their mind through a gradual development both morally and intellectually. Education is one of the means of overcoming handicaps, achieving greater equality, and acquiring wealth and status for all. It is a place where a learners can develop and find out the needs, talents and potentials. (Waller.R , 2011, The Sociology of Education)

### **2.2 EVOLUTION OF HIGHER EDUCATION TO UNIVERSITIES**

From the very beginning of time and human civilization till today, the process of educating ourselves have evolved. The history of civilization began 3000-1500 BCE and many different civilizations flourished simultaneously in various parts of the world. One thing was common

among all civilizations, and that was the thirst of gaining and sharing knowledge.

The origin of Institutional higher education is a debatable topic among the scholars. In the 15<sup>th</sup> century, most higher educations were based on religion and beliefs which were practiced widely in Madrassas, Church, Monasteries and that too varied across the world. According to the Guinness Book of World Record, the first was Al-Karaouine mosque in Morocco, established in 859 AD by Fatima-al-Fieri who was a Muslim woman rooted to traditional Islamic education. The mosque later added grammar, Math, physics, chemistry, medicine and astronomy. Such schools started to grow in other parts of Middle East such as Iran and Egypt, and mostly during the 11th century it started teaching Sunni Islamic learning and Arabic literature (Kenney, Jeffrey T.; Moosa, Ebrahim, 2013, 15<sup>th</sup> August, Islam in the Modern World).

On the other hand, Takshashila, 600 BC to 500 AD in the kingdom of Gandhar which is also claimed as the first University. In Europe, higher education is said to have begun in the middle ages and took place in cathedral schools for hundreds of years. However, the practice of pursuing higher education increased gradually but Universities were still rare as educations were still pursued in religious centers for a long period of time. A new trend of educational institute finally emerged- the University of Paris, founded in 1170 with its major focus of study being Mathematics, astronomy, grammar, geometry, music, culture and most importantly theology. (Mookerji. R.K, 1989, Ancient Indian Education).

Established in 1088, University of Bologna in Italy is recorded to be one of the first institutions to be called a University. The curriculum initially consisted of logic and grammar. Whereas Mathematics, astronomy, philosophy and medicine later being added as fields of study. The knowledge of arts and humanities was starting to be considered important to be a

part of society which is later discussed in this study (Dmitrishin.A, 2013, The European University in Comparative Historical Perspective)

According to the architectural pattern, University campus design can be categorized into four generations. The 1<sup>st</sup> generations were the Universities of Paris, Bologna, Oxford and Cambridge. The second generations were the Universities of Redbrick, marked an opening up of education through a regional based institution. The 3<sup>rd</sup> generation is faced with challenges of growth and expansion therefore they are also out of town campus. The 4<sup>th</sup> generation is the present day Universities. Many institutions undertake the higher educational roles to the same standards as the established universities. At the start of 21<sup>st</sup> century, knowledge and learning became the fundamental need of postmodern survival and validation. However, this evolutionary growth is ongoing. (Wilkinson. T, 2015, 6 October, Typology: University)

### **2.3 HIGHER EDUCATION AND ITS GROWTH IN BANGLADESH.**

We have bounteous evidence of the condition of various branches of knowledge in ancient Bengal, but rare authentic information and evidences regarding the education system in the available sources. Buddhist Sangharamas, Viharas and the Brahmanic religious centers served as residential centers for education in that ancient period. During Muslim period of Bengal, Sultans, Sufis and scholars encouraged education and gaining knowledge in order to fulfill their religious practices. Mosques and madrasas were established in order to pursue knowledge in different places of Bengal which served as centers of Muslim education and culture till the colonial period. This system was replaced by the colonial system during the colonial period. University education during this period

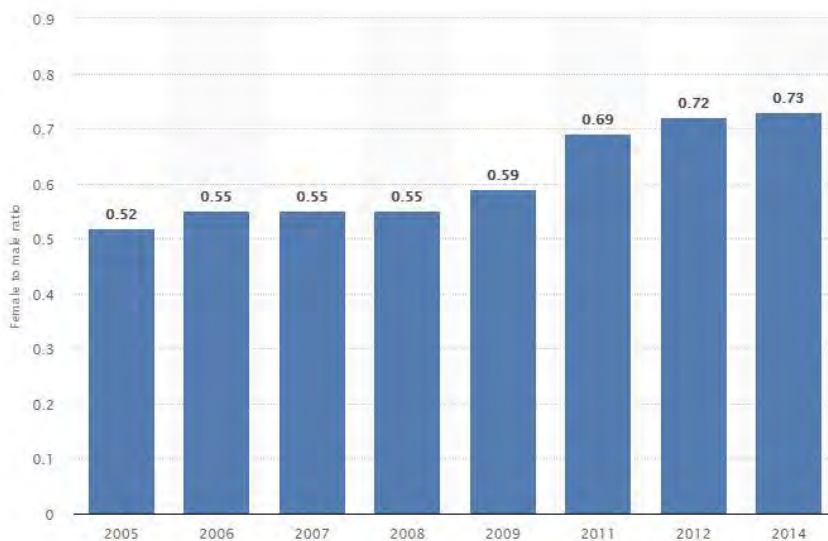


(1916-17 to 1946-47) saw some outstanding developments. It witnessed the establishment of fourteen new universities in the whole of India.

The University of Dhaka, established in 1921, was a part of the expansion program. University of Rajshahi, the second in the province, was established in 1954 and Chittagong, the third, in 1965. There was no increase in the number of universities till about 1985 when the Islamic University became operational. The intervening years were not barren, though. All the six universities continued to grow in size. Private universities were already in the air in the nineteen eighties. Violence on the campus caused by warring groups in the universities, The Private Universities Act, 1992 has permitted the establishment of private universities in Bangladesh. Literacy rates were significantly low in Bangladesh. Higher education was once known to be prevailed within the rich. Before the British rule (1757), education was considered a social prestige in the context of Bangladesh. Later, they designed a system which educated a selective group of locals to serve the economy and political interest. Most of the institutions were located in the urban centers and English became the medium of communication. It is said that during the first hundred years under the British rule, very little was done to promote higher education.

According to the UGC report 2006, the present scenario of Bangladeshi higher education is quite different. With a better economy, increased GDP, and achievement of the middle-income status, more people can now afford the luxury of higher education. It is believed that higher education provides the knowledge and training to be competent in the real world and more so in a developing country. The competition is immense in present day world and higher education has become the key to go towards globalization and growth towards prosperity of ourselves and our society. (*Kaisar.K.M, 2005, Reports of Private University*)

During the 90s, the government began to realize that they could provide the growing demand of higher education and started planning accordingly. Groups of educationist took initiatives to form private universities which were appreciated by the government and 1992 Private University Act were set, which were farther amended in 1998 so that the universities work on meeting demands necessary to provide high quality education. It was also set so that, Universities don't misuse or take advantage of it. Presently, Bangladesh has 80 Universities of which- 26 universities are public and 54 universities are private. According to Bangladesh Bureau of Statistic 2014, the female to male ratio in tertiary education in Bangladesh from 2005 to 2014. In 2005, there were approximately 0.52 females per 1 male in tertiary education in Bangladesh. This ratio increased to 0.73.



Bangladesh comprises of two types of education in the tertiary sector: colleges (including madrasas) and universities. Colleges are known to provide degrees or diplomas in the professional, technological or special type of courses. A university, on the other hand, provides Bachelor's degree up till Ph.D.

(EP Nuffic, January 2012, Educational Institute of Bangladesh)

According to the Vice Chancellor of ASAUB, the main objectives of an educational institution should be creating the necessary skilled manpower to meet the needs of the developing country and which can only be achieved by education. (Personal communication, 2018, February15)

## **2.4 MORPHOLOGY OF PRIVATE UNIVERSITY**

The opportunities for good quality educations are extremely limited in Bangladesh especially if we look at Private Universities. A large number of prospective students cannot get admission due to limited seats available in small numbers of public universities. In 1992, the government, by an act of Parliament, allowed the establishment of private universities in Bangladesh. Since then, a large number of private universities have been opened in the country -mostly located in Dhaka, Rajshahi and Chittagong. Universities, both public and private, play important roles in creating opportunities of highly educated and trained scholars. Thousands of students who pass the higher secondary examination cannot get admission to the few public universities due to limited seats. Very few get admission become hostage to endemic campus violence, session jams and poor. academic atmosphere. In order to compensate the situation, the Government of Bangladesh (GOB) in 1992 propagated an ordinance by permitting the establishment of private universities in Bangladesh. Some welcomed this development with a sigh of relief, while others viewed it with reservation. (The UGC of Bangladesh, 2016, UGC Profile)

## **2.5 IMPORTANCES OF PRIVATE UNIVERSITIES**

Today's education system needs to be global. 'World Class Education' involves a globally accepted high standard of education. Bangladesh needs an increasing number of highly

educated people and skilled professionals in order to integrate into the globalization process. The country also needs scholars, philosophers and leaders with vision. Leaders are our human capital. The state must provide opportunities for higher education to create human capital that meets global standards. There are many private universities in Japan, Thailand and the Philippines. Since the 50s, the distinction between public and private universities has gradually diminished in the developed world, as state universities receive private endowments and research grants and private universities also use state funds. Presently, there are 13 public universities apart from the 6 technical universities being set up in six divisions, 30 private universities, and 2,339 colleges under the National University. While there is lack of qualified teachers for mathematics, science and English teachers, there is a huge surplus of arts and social science graduates. University degrees are losing relevance and offer poor opportunities for employment. The proportion of professors to associate professors and lecturers has been rising since the early 80's and is one of the highest in the world. In public universities, the teacher-students ratio is 1: 20 on the average, which is quite high in global standards. Even this ratio is misleading, as many teachers do not take their classes regularly. Of the more than 200,000 students who passed HSC and its Madrassa equivalent examination in 2000, only 17,000 about 8% could get admission in public universities. Thus, a large number of deserving aspirants do not get admitted into the public university system. The educational needs of these residual candidates have to be provided for. Many of these students, especially those from well-to-do families, go abroad for higher studies. (The UGC of Bangladesh, 2016, UGC Profile)

## 2.6 BACKGROUND OF ASA UNIVERSITY BANGLADESH

**ASA**, which is known to the first microfinance institution of Bangladesh, which was Managed MFI in the world was founded in 1978. The organization attempts serving the underprivileged groups in order to help achieve a better living and reducing poverty in Bangladesh. The core program of ASA is Microfinance, and also implementing non-financial program like: Education, Healthcare, Sanitation, and Agriculture etc. ASA is a completely self-financed and grant-free organization, successfully standing the challenge with 8 million of their clients in Bangladesh. It operates the following non-financial programs from its own resource generated out of the surplus of microfinance operation- Microfinance program, Agricultural Program, Foreign Remittance, Health and Sanitation Program and Education program on which this paper focused on. (Rutherford. S, 1995, ASA: The Biography of an NGO: Empowerment and Credit in Rural Bangladesh)

**Education Program of ASA** helps the students from pre-primary- grade-1 and grade-2 students who belongs to the low-income families themselves. This program started with an aim to reduce dropouts from the primary school. This program currently provides tuition assistance to **285,000** underprivileged children predominantly living in rural areas across the country. ASA stands with the hope to provide education for all because the advancement of our country's growth depends on education in primary, secondary and tertiary educations. **ASA University of Bangladesh** on the other hand, started with the purpose of providing higher education to everyone at affordable range in order to achieve a poverty free society. (ASA, 2017, ASA Bangladesh Annual Report)

# HISTORY OF ASA BANGLADESH



**(ASSOCIATION FOR SOCIAL ADVANCEMENT)**  
 BORN IN A VILLAGE NAMED TAPRA, MANIKGANJ  
 ASA OPERATES COEFFECTIVE & SUSTAINABLE  
 MICROFINANCE MODEL NGO IN BANGLADESH.  
 ASA IS ABSOLUTELY SELFFINANCED AND GRANT-FREE ORGANIZATION.

# 1978

1970

1971 **WAR OF LIBERATION**  
 BANGLADESH EMERGED AS AN INDEPENDENT NATION  
 MANY LEFT BEHIND IN STATE RAVAGED BY WAR.

1801 1972 BANGLADESH ECONOMY SUFFERED HUGE BLOW DUE TO  
 THE POLITICAL UPHEAVAL & POOR CONTROL MECHANISM,  
 FREQUENT AGITATIONS, POLITICAL UNREST, & NUMEROUS  
 CHANGES OF GOVERNMENTS THAT WERE TOO INEXPRES-  
 SED TO UPHOLD STABILITY AND DISCIPLINE.

1973

1974 • **THE GREAT FAMINE**  
 BROKE IN BANGLADESH

1975 MANY NON-GOVERNMENT ORGANIZATIONS EMERGED  
 TO PROVIDE RELIEF AND REHABILITATION & TO FACILITATE  
 THE POOR

1976

1977

**FOUNDATION PHASE OF ASA**  
 FOCUSED ON CONDUIT RISKING, GROUP  
 DEVELOPMENT AND TRAINING AMONG RURAL  
 POOR TO ESTABLISH A JUST SOCIETY.

**ASA FORMALLY REGISTERED**  
 BY GOVERNMENT

- DIFFERENT PROGRAMS WERE UNDERTAKEN INCLUDING:
- Awareness building for social action.
  - Legal aid and awareness build-up program.
  - Training program.
  - Communication support service program.
  - Training for rural journalists.

1978

1979

1980

1981

1982

1983

1984

**REFORMATIVE PHASE OF ASA**  
 CONCENTRATED ON CORE MICROFINANCE  
 DEVELOPMENT FOR THE BETTER ENJOYMENT  
 OF UNDERPRIVILEGED PEOPLE

The reformative phase also brought out positive changes  
 in the livelihood of the rural poor, but some constraints  
 were identified as well.

- Many ASA members left the organization to join other organizations, which provided more appropriate products for their needs, such as credit for income generation purpose.
- Development and implementation of interrupted programs.
- Took a long time and the group members had to wait a longer period to obtain credit.
- The absence of funds led to uneven distribution, which meant that a few members could obtain large amounts of credit while others got little.

1985

1986

1987

1988

1989

1990

1991

**PROGRAM SPECIALIZATION  
 PHASE OF ASA**

FORMED CREDIT PLUS PROGRAMS THAT EVENTUALLY  
 LED ASA TO PROVIDE A FULL MICROFINANCE PACKAGE.

- Savings and credit for income generation in a cost-effective manner.
- Capital Building Savings Fund (CBS) to shield members from unforeseen hardships.
- The main objectives of this phase are:
  - Alleviate poverty and improve the quality of life of the landless rural poor by providing them with appropriate and affordable financial services.
  - Reduce the dependence of the poor on the local moneylenders.
  - Facilitate additional income earning at micro level for improving the economic status of the women and
  - Empower the landless and disadvantaged people.

1992

1993

1994

# 1992

# ASAUB

**ASA UNIVERSITY OF BANGLADESH STARTED THEIR JOURNEY  
 TO PROVIDE AFFORDABLE HIGHER EDUCATION**

AN INSTITUTION OF HIGHER EDUCATION ABSOLUTELY DEDICATED TO QUALITY EDUCATION AT AFFORDABLE COST  
 THEY FOCUS ON CAREER PLANNING AND EMPLOYABILITY OF STUDENTS. THEY STAND FOR ACADEMIC AND  
 PROFESSIONAL EXCELLENCE.

NO. OF STUDENTS: 4000  
 NO. OF FACULTIES: 80  
**FACULTIES: 4 (Four)**  
 Faculty of Business  
 Faculty of Law  
 Faculty of Arts & Social Science  
 Faculty of Science & Engineering

**DEPARTMENTS: 5 (Five)**  
 Dept. of Business Administration  
 Dept. of Law  
 Dept. of English  
 Dept. of Public Health  
 Dept. of Pharmacy  
 Dept. of Applied Sociology



**ASA University of Bangladesh** started on 23 October 2006, their educational approach with a keen bunch of professional academics who were more than enough to provide and commit strong support for their students. They focused on creating an intriguing learning environment so that the students are as much as eager as the teachers who are providing education. They also focus on providing practical approaches such as an internship, fieldwork opportunities and also lab experiments for different disciplines so that the students get a sense of a holistic approach after graduating from the institute.

ASAUB has a reputation for hiring academicians who have national and international reputations as well, moreover who are popular for their pragmatic teaching techniques. It helps the students to learn in an environment that promotes enthusiasm, inventions and breeding new ideas. Being a student in ASAUB means that the students gather the required transferable skill set that is polished with practical understanding so that they can excel themselves in relevant employment fields and also adapt themselves to the complex and fast-changing modern world.

The ASAUB campus is also reputed for a rich library with a commendable collection of books that reflects the University's curriculum for the present and the future. The study structure is based on the North American system of trimesters, credit hours, letter grades, and one examiner. UGC experts' reviewed and duly approved the curricula of these programs when it was first introduced by the University. The curricular is constantly under supervision and modification to feed the need of the University and also the Society as a whole. Because of its reputation, the University is also attracting students from abroad. (ASA, 2017, ASA Bangladesh Annual Report)

## 2.7 INTERPRETATION OF ASAUB LOGO



The logo of ASA contains two human hands at the bottom, the shining middle and the circle of the horizon on the top.

The sun in the logo symbolize the source of all energy or resources. The two hands are the hands of the struggling people and the circle at the top is the horizon of the eternal blue sky.

The logo therefore reflects the meaning that poor people are capable of grip the source of energy or resources through widening their knowledge and reach up to the horizon with the institutional support of ASA . (ASA, 2017, Annual Report 2016-17)



## **2.8 ABOUT ASaub EDUCATION AND FACILITIES**

### **ASaub has 4 Faculties:**

- > Faculty of Business: BBA, MBA (Regular & Executive)
- > Faculty of Law: LLB (Hons), LLM
- > Faculty of Arts & Social Science: BA (Hons) in English, MA-ELT, MA in Literature,  
BSS in Applied Sociology
- > Faculty of Science & Engineering: M.PH, B. Pharm

### **The 4 faculties offers 6 departments:**

- > Department of Business Administration
- > Department of Law
- > Department of English
- > Department of Public Health
- > Department of Pharmacy
- > Department of Applied Sociology

Moreover, they have Research Centre for Socio-Economic Research (CSER), a central library, seminar libraries at different departments, Internet Lab and MIS Lab.

Presently, they operate their academic and administrative work at ASA Tower, Shyamoli, Dhaka, with 72 teachers, 4000 students, 56 officers and 28 staffs . (ASA, 2017, Annual Report 2016-17)

## CHAPTER 3: SITE AND CONTEXT ANALYSIS

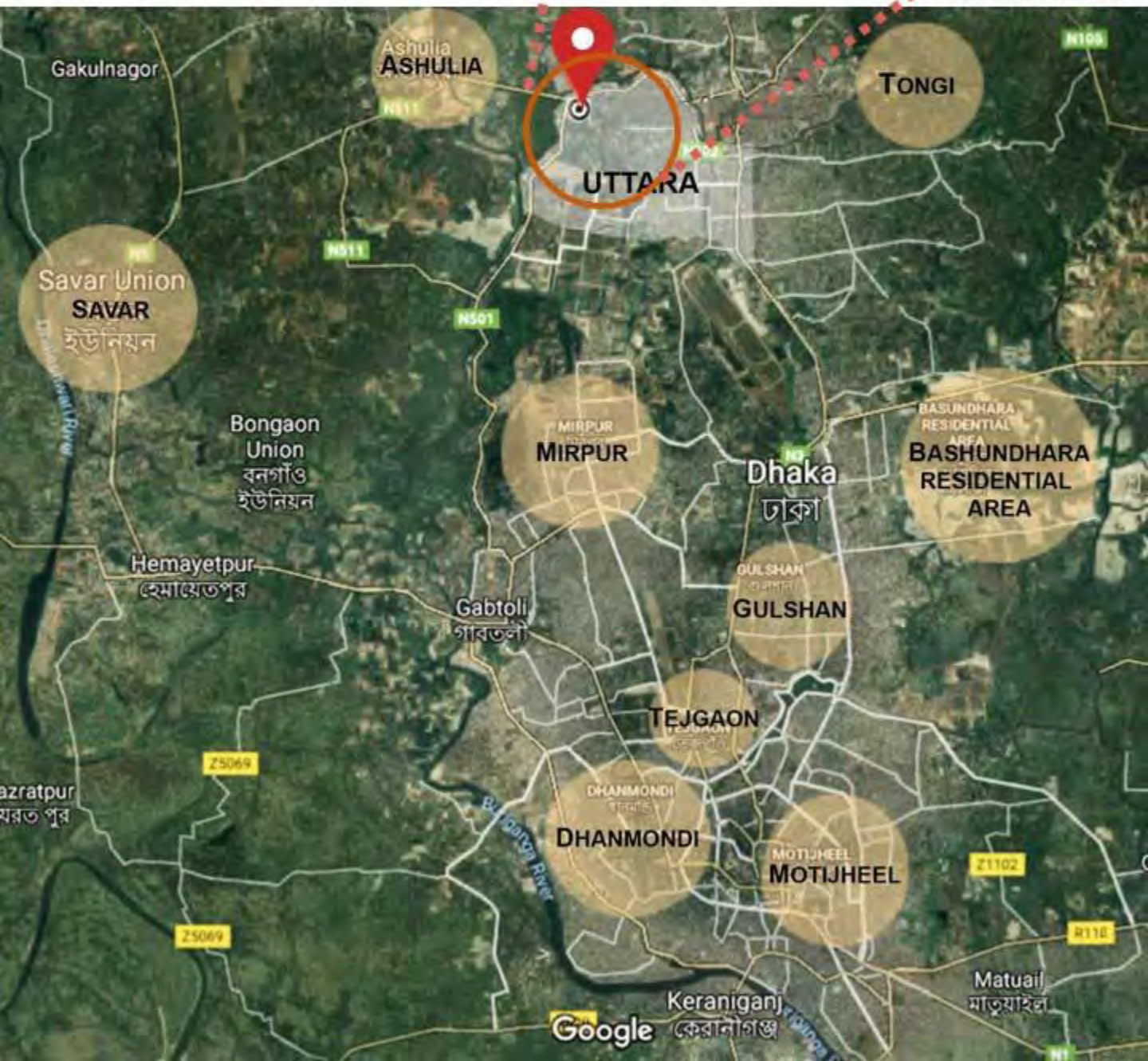
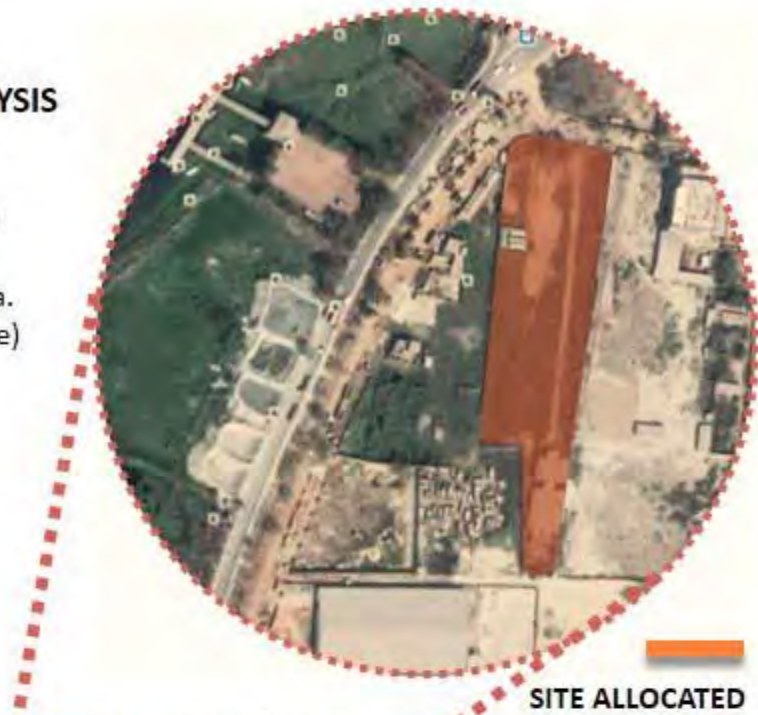
### 3.1 SITE FOR ASA UNIVERSITY BANGLADESH

**Site:** Mogdom Ali Sarker Road, Dhaur, Dhaka.  
Ashulia Thana ( Adjacent to Uttara 3<sup>RD</sup> phase)

**Latitude:** 23°53'28.78"N

**Longitude:** 90°21'42.26"E

**Site Area:** 2.7 Acre



### 3.2 TURAG THANA MOUZA MAP WITH RESPECT TO ALLOCATED SITE



(Based on Mouza Map from ASAUB Authority)

### TURAG THANA MOUZA MAP

#### Detailed Area Plan for DMDP Area [Location-1]

Scale 1:2000 or 1cm = 20.00m or 1" = 328ft

**Legend**

--- DMCP Boundary	Existing Road	Bridge/Covered
--- Canal Boundary	--- Road (Private)	--- Railway tracks
--- DMCP Boundary	--- Road (State/public)	--- Encroachment
--- Canal Boundary	--- Road (Public)	--- Transportation & Communication
--- Thana Boundary		--- Transportation Facilities
--- Union Boundary		
--- Planning Boundary		
--- Ward Boundary		
--- Sheik Boundary		
--- PSC Group Boundary		
--- Grid Boundary		

**Proposed Landuse Categories**

Administrative Zone	Mixed Use Zone (Residential-Commercial-General Industrial)
Agricultural Zone	Mixed Use Zone (Residential-Commercial-Industrial)
Commercial Zone (Business)	Non-Creosoting Line
Commercial Zone (Office)	Open Space
Hotel/View Zone	Open Space
General Industrial Zone	Proposed Road Network
Heavy Industrial Zone	Rural Settlement Zone
Institutional Zone	Urban Residential Zone
Mixed Use Zone (General-Industrial)	Water Reservoir Area
Mixed Use Zone (Residential-Commercial)	Waterbody

Government of the People's Republic of Bangladesh  
Ministry of Housing and Public Works  
Rajdhani Unnayan Katripaksha (RAJUK)

**Site Source:**  
All Matters Maps, Division of Land Records & Survey (DLRS)  
CPW & Total Station based (TCP) survey in accordance  
Reference Bench Mark (RBM)  
NAD 1978 for Location/Setting & Longitude Setting and TCP 400m for  
Reference Level (RL)

**Projection Parameters**

Projection System	Bangladesh Government Geoid (BGG)
Horizontal	Universal Transverse Mercator (UTM)
Scale Factor	0.9996
Central Meridian	90° East
False Easting	500000 Meters
False Northing	2000000 Meters
Latitude of Origin	23°30'00" N

Scale: 1:2000  
Grid Values are Shown in Meter  
TCP Survey Year: 2008  
Sheet of Map Frame: 10/10  
Date: 12/2011

Consultant	RAJUK
 Consultant Representative Date: 12/2011	 RAJUK Representative Date: 12/2011

**CONSULTANT**  
SHELLTECH

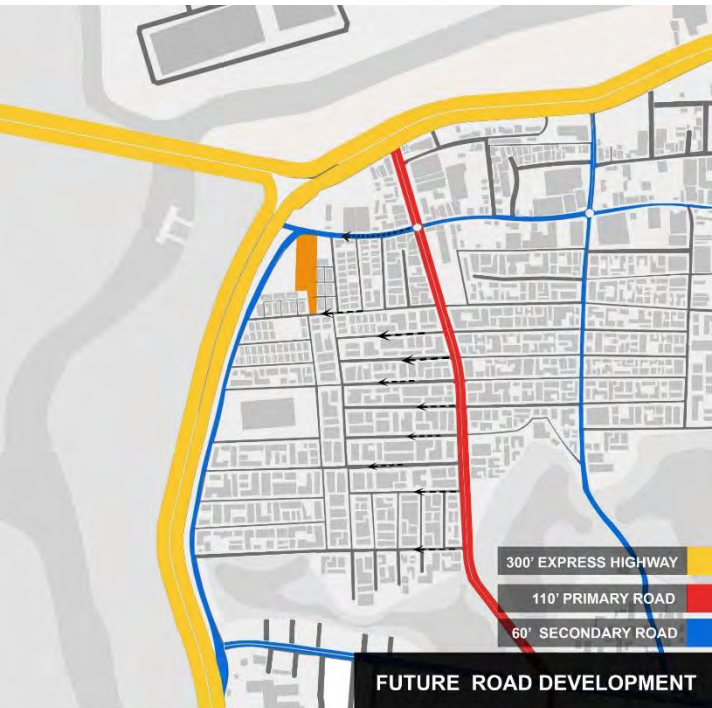
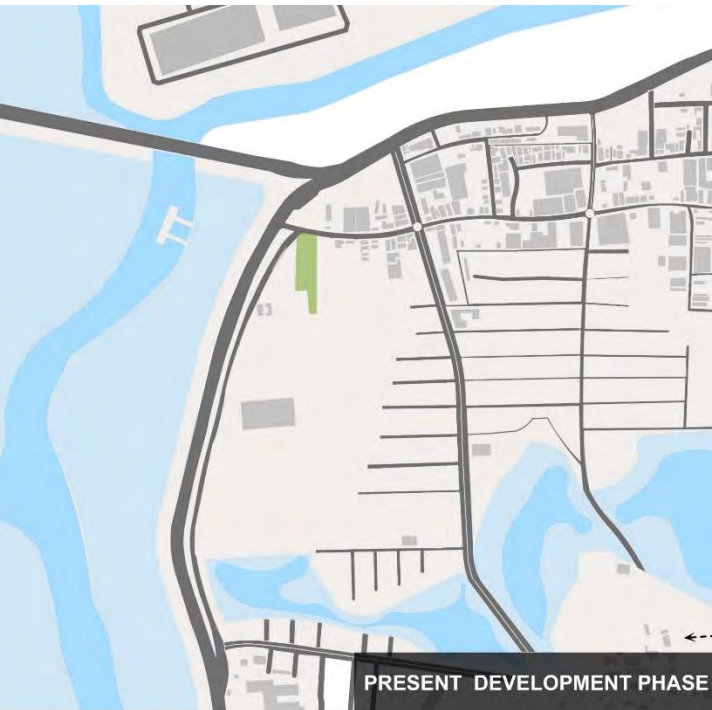
**INDEX MAP**

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**ADMINISTRATIVE INDEX**

### 3.3 FUTURE SITE CONTEXT & DEVELOPMENT



### 3.4 SITE SURROUNDING OF TURAG THANA

Turag Thana situated in Dhaka city which is of area 12.17 sq. km, located in between 23°52' and 23°53' north latitudes and in between 90°21' and 90°23' east longitudes. There are Gazipur Sadar Upazila on the north, Pallabi Thana on the south, Gazipur Sadar upazila and Uttara Thana on the east and Savar Upazila on the west has a population Total 53558; male 28642, female 24916; Muslim 51545, Hindu 1878, Buddhist 121 and others 14. Water bodies Main river: Turag; Tongi Khal and Thathir Beel are notable.

> There are religious institutions Mosque 90, temple 1, puja mandap (place of Hindu worship) 8. Noted religious institutions: Rosdia Jami Mosque, Turag Thana Shahi Jami Mosque, Baunia Baitus Sharif Jami Mosque, Dalipara Jami Mosque and Dhaur Shiva Mandir.

> Literacy rate and educational institutions Average literacy 60.54%; male 65.62%, female 54.72%.

> Educational institutions: university 1, college 3, secondary school 6, primary school 26, kindergarten school 9, training center 19, madrasa 25. Noted educational institutions: International University of Business, Agriculture and Technology, Turag Business and Management College, Turag Management College, CSD College, Emerson High School and College, Kamarpara High School and College, Islamic Education Society School and College, Diabari Model School, Baunia Abdul Jalil Ideal Government High School, Kamarpara Government Primary School and Dhaur Government Primary School.

> Cultural Organizations Playground 3, community center 7.

> Important installation and tourist spot Priyanka Shooting Zone, Hotel Tajmahal, Kashmir Garden Shooting Zone and Amusement Centre.

> Main sources of income Agriculture 11.37%, non-agricultural laborer 4.03%, industry 1.21%, commerce 27.04%, transport and communication 5.66%, construction 4.30%, service 30.30%, religious service 0.24%, rent and remittance 2.13% and others 13.72%. Ownership of

> Agricultural land Landowner 43.97%, landless 56.03%.

> Main crops Paddy, mustard seed, vegetables. Extinct or nearly extinct crops Jute, wheat, pulse. Main fruits Mango, jackfruit, banana, black berry, coconut.

Fisheries, dairies and poultries This thana has a number of fisheries, dairies and poultries.

Communication facilities Total road 16.20 km.

> Extinct or nearly extinct traditional transport Palanquin, bullock cart.

> Main exports Paddy, vegetables, readymade garments, hosiery goods, sand, chalk powder, plastic goods.

Access to electricity all the unions and mouzas of the Thana are under electrification net-work.

However 89.02% of the dwelling households have access to electricity.

Sources of drinking water Tube-well 92.06%, tap 3.61%, pond 0.367% and others 3.97%.

Sanitation 82.50% of dwelling households of the upazila use sanitary latrines and 13.37% of dwelling households use non-sanitary latrines; 4.13% of households do not have latrine facilities.

(Bangladesh Population Census 2001, Bangladesh Bureau of Statistics; Field report of Turag Thana 2010.)

### 3.5 SITE TOPOGRAPHY AND ITS CONCERN

The site was originally a low land, water body beside Beri Bandh. The land was filled in order to raise the ground level. Hence, it is a flood prompt area. Presently, it is a flat land. There is part of Turag River adjacent to the site.

It is one of the most important river around Dhaka city which is used for various purposes throughout the century. The river is a matter of great importance from economic point of view. It is also a transit point with Bangshi, Dhaleswari and Buriganga of the Dhaka city. The Turag river is one of the most polluted river surrounding the Dhaka city. The tributaries and distributaries of the river also polluted. The Bangshi which is the tributary river of Turag is heavily polluted and its distributary Buriganga is another well-known polluted river in the Dhaka city. The field study of the Turag river made from Abdullahpur to Amin bazar. Various source of pollution are seen through Ashulia beribadh. The present state indicate that time has come to take some initiatives to save Turag river. Pollution scenarios are seen at every place of the river bank. Nevertheless, the daily landfill around Turag river are creating blockades of the river, disrupting it natural flow is also becoming a matter of concern during flood seasons.

### 3.5 ALLOCATED SITE OBSERVATION



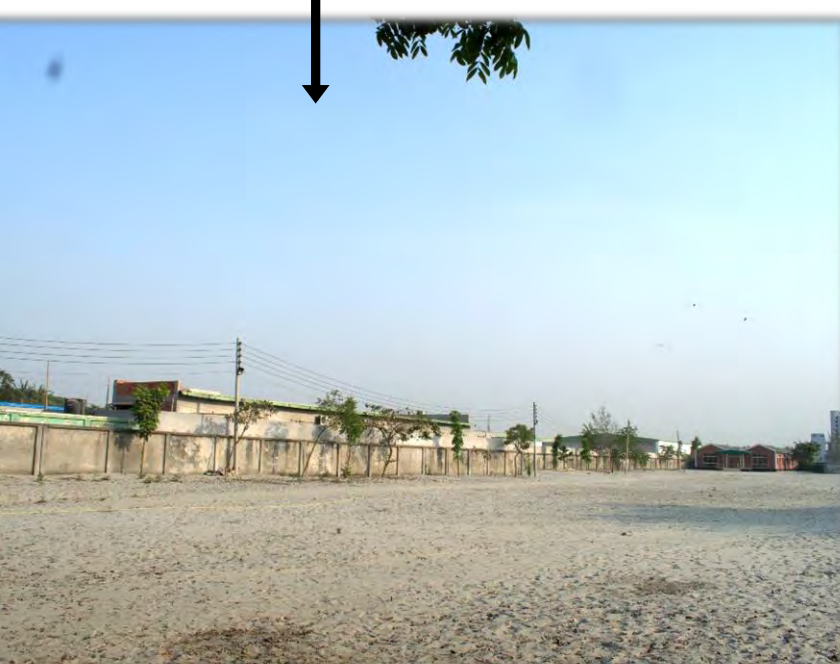
**PARANOMIC SITE VIEW**



**TURAG ASHULIA LANDING STATION ADJACENT VIEW**



**MOGDOM ALI SARKER ROAD**



**SITE VIEW**



**MIRPUR- ASHULIA HIGHWAY**



**ASHULIA BUSTOP**



There are varieties of site forces.

> Most of the existing buildings around the site are low rise which provides a spectacular obstacle-free of the river Turag which is located on the west. Turag River once used to be a very significant water transport system and is still used by many local tradesmen for carrying business goods.

> The site is bound by a water body that is a narrow strip of Turag on the western side, separated by the highway. The Ashulia landing station is also opposite to the site. This may allow the campus have a breathing space outside the campus area where the students may venture boat ride on the Turag river.

> It is situated adjacent to a node connected Mirpur Road and Dhaka- Ashulia highways, along which there is also a bus stop. The site has roads on west and east side. Both roads will be of 110 ft. wide.

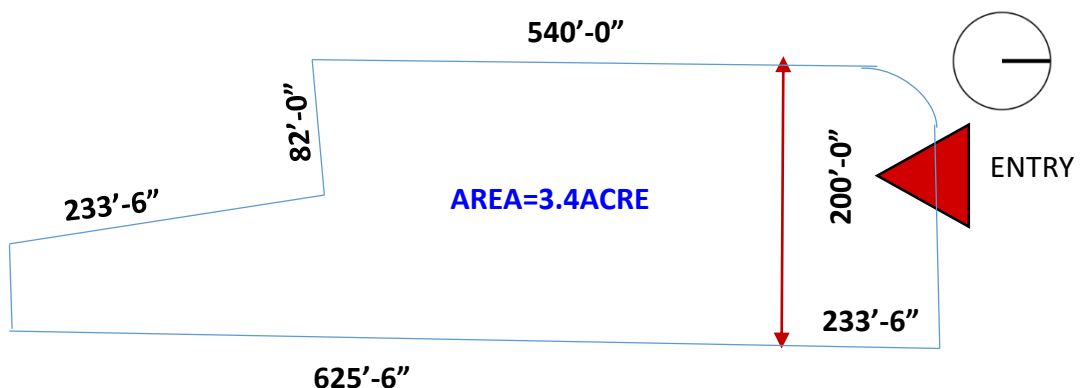
> There are many other sites for future permanent campuses of other private universities like- ULAB, BGMEA University, Santo- Mariam University of creative technology, World Universities, Daffodil University, Uttara University, etc. of which all are under construction.

> The current state of the location has- huge open space with no infrastructure and no development. RAJUK has future developing urban plan for it which includes a full functional residential area with mosques, playground, many academic institutes, hospitals and many more.

> There are also industries around the site of Southern Garments, Shampooni Group and Naznin Sarker Garments.

> Moreover there is residential plots of Uttaran properties.

### 3.6 SITE BOUNDARY DIMENTION



### **3.7 SWOT ANALYSIS (Personal observation, February 2018)**

#### **3.7.1 Strength**

- > This sectors of Uttara still have not seen the face of development but it has future plans. For that it has a good potential of becoming a good urban zone with development.
- > Wide roads around the site.
- > A lake at the west side. It can neutralize the hot air flows through the west and make it cool.
- > As the south-east side of the site has a very few structure and the lake also continues there as well, there is possibility of wind flow through the site allowing a cross ventilation of cool air and making a micro climatic effect.
- > Students may have the opportunity to enjoy the lake view.
- > Nearby the site at the south side there is a bridge which may turn into an important node and a place for recreation.
- > There is a very less dominant high rise structure plan for the future. So daylight and view of the landscape at west and south can be used at its best.
- >The overall area has the chance to connect Uttara and Mirpur. As a result, it is an opportunity for a huge amount of students to fulfill their dreams.

#### **3.7.2 Weakness**

- > As the strength is a lake at the west the weakness is also the lake at west. Ensuring the view at the west will be difficult because of the Sun.
- > Being west- east oriented the Sun heat will directly cause trouble for people.
- > The north view may be blocked due to high rise plans of future.
- > Flight aviation route is right over the site. As a result, there is a height restriction of 10 stories as per rule of RAJUK.

#### **3.7.3 Opportunity**

- > The front side (east side) with be full of residential buildings but of only 5-6 storied which may bring out a positive site force.
- > It has very good road network. It has the ability to connect the people of Uttara and Mirpur.
- > The river side can serve as a nearby recreational and public space be of good use for the students even outside the designed campus.
- >The river will create a visual force and a breath taking space, and attraction side for the students outside the campus

### **3.7.4 Threat**

- > Unplanned development of this urban area can put negative impact on the University.
- > Unplanned development of the project may have negative impact on the residential part.
- > May create sound pollution by road traffic as well as Airplanes.

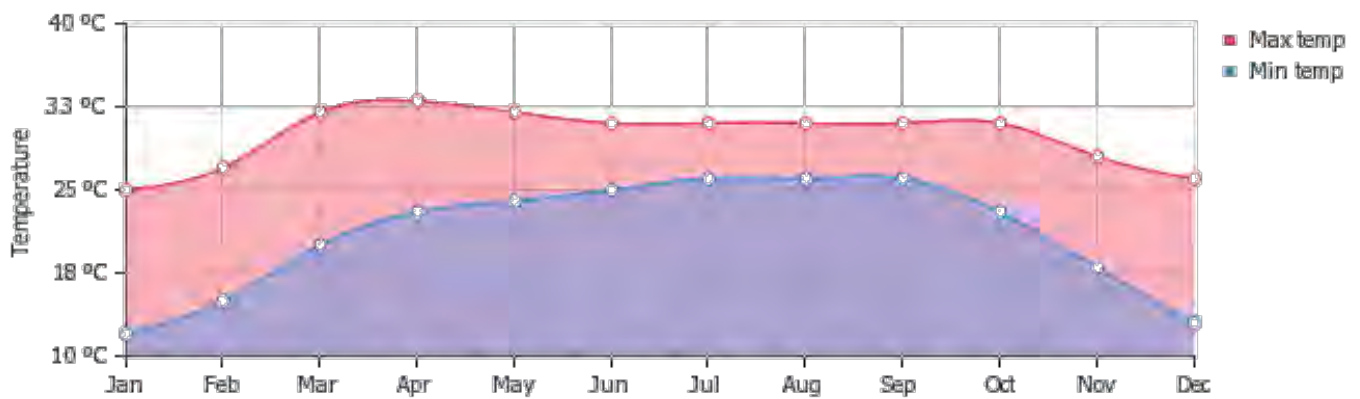
### **3.8 CLIMATE ANALYSIS**

Bangladesh has a tropical climate which means it is a hot and rainy during summer and a dry in winter. Bangladesh is subject to devastating cyclones, originating over the Bay of Bengal, in the periods of April to May and September to November. Surging waves are often common and these storms can cause great calamities and risk to life. The cyclone of November 1970 effected about 500,000 lives and many lost their lives in Bangladesh, was one of the worst natural disasters of the country during that time. Bangladesh is prone to devastating cyclones, which originates in the Bay of Bengal, in the periods of April to May and September to November. Often accompanied by surging waves, these storms can cause great damage and loss of life. The cyclone of November 1970, in which about 500,000 lives were lost in Bangladesh, was one of the worst natural disasters. (Retrieved from [www.Best-Country.com](http://www.Best-Country.com), 2006-2015, Climate of Bangladesh)

Average monthly weather in Dhaka, Bangladesh:

- The average temperature normally pleasant during November, December, January and February.
- On average, the temperature remains high.

- April, May, June, July, August, September and October have lot of rain in Dhaka.
- November, December and January are comparatively dry.
- April is the warmest.
- January is the coolest.
- August is the most rainy.
- December has the lowest temperature and always very dry.



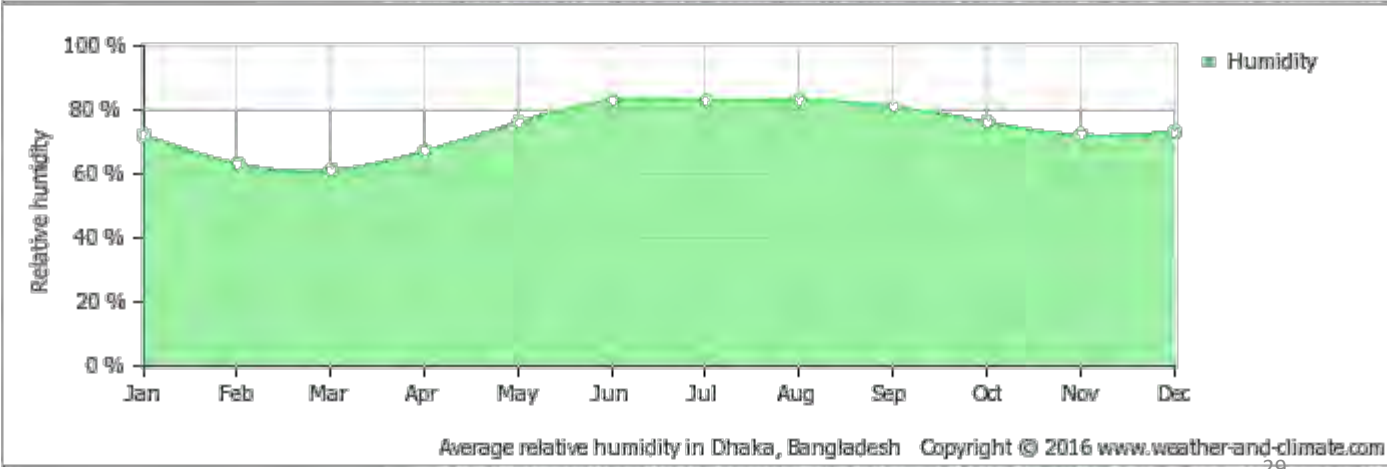
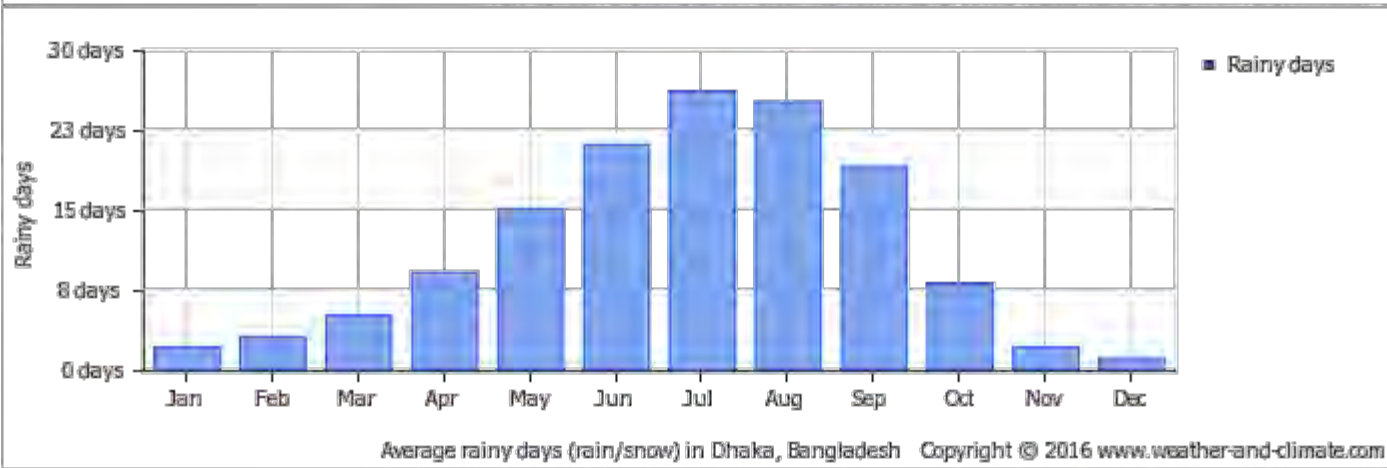
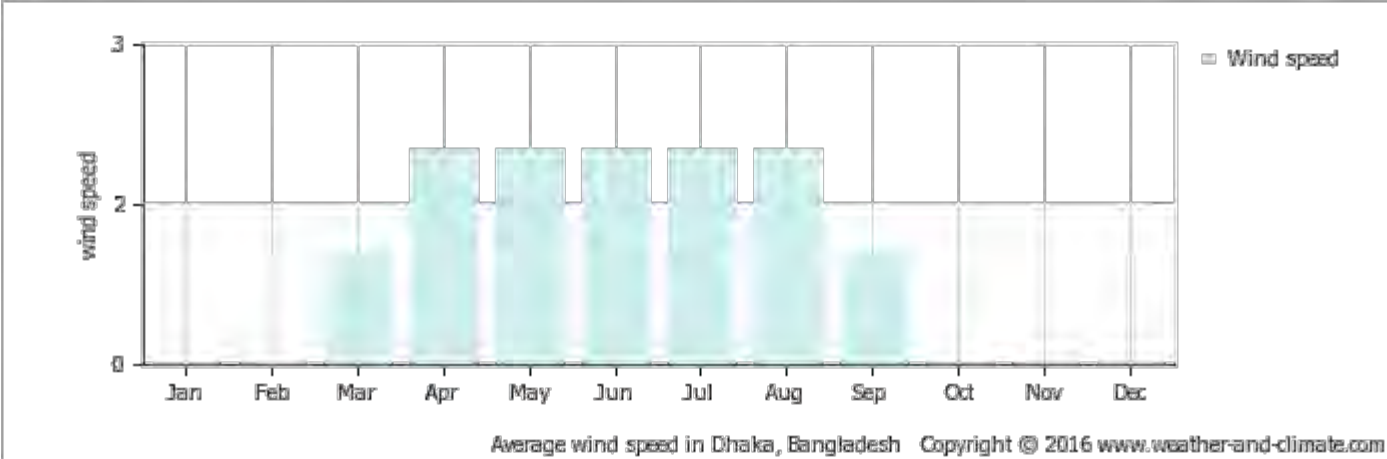
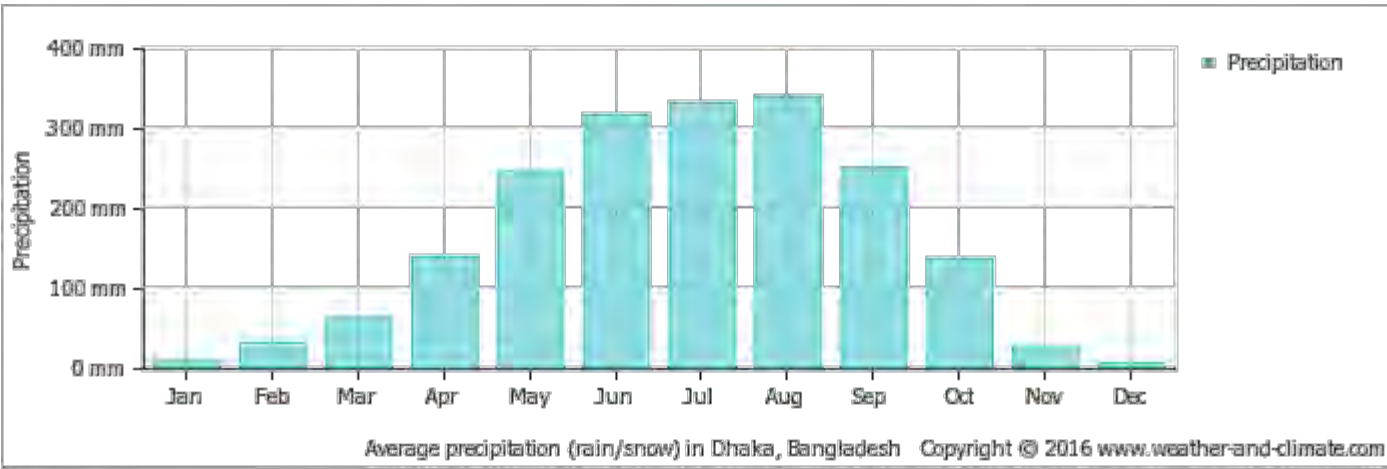
Average min and max temperatures in Dhaka, Bangladesh Copyright © 2016 www.weather-and-climate.com



Average monthly sunhours in Dhaka, Bangladesh Copyright © 2016 www.weather-and-climate.com

With the current state of the site as it does not have any big trees and just only flat land, when the Sun is up temperature is high and when the Sun is down the weather is cool.

The site has a tropical wet and dry climate



## CHAPTER 4: PROGRAM ANALYSIS

### 4.1 Program rational

> The program of the ASA University of Bangladesh includes six departments:

- Department of Business Administration
- Department of Law
- Department of English
- Department of Public Health
- Department of Pharmacy
- Department of Applied Sociology

All the department requires offices for operating and a departmental headroom which is at least of 150 sft and about 25 sft is needed for per teacher. There is also space for teacher common room and storage to contain essential files and documents.

> Gallery or exhibition spaces are necessary for students of all disciplines to display their work which will be around 8000 sq.ft.

> There is also a need of a library for 400 students. For sitting about 6000 sq. ft. space is needed considering the fact that the per student needs 15 sft for sitting.

> A central cafeteria will serve as the secondary common space for everyone. For 200 sitting 4000sft space is needed.

>There will be also an indoor game space for the student which will include bowling, billiard table tennis, Gymnasium and a swimming pool.

> For a capacity of 1000 student there is an auditorium of 15000 sq. ft. All the cultural event, convocation etc. can be performed here.

> The administration block will have the control over the university. It will have Reception & Admission Office, Office, VC's office, Registrar's Office, Office Controller of Exam, Proctor & Director room, Student Welfare, Treasurer's Office, Accounts Office and more.

The administrative block shall be well connected with the central library.

>Academic building will consist of class rooms for 40 students approximately, And study rooms in with each floors, Computer labs accommodating atleast 40 students, lounges and pockets cafeterias.

## 4.2 PROGRAM REQUIREMENT OF THE PROJECT

### 4.1.1 Departments:

- Department of Business Administration
- Department of Law
- Department of English
- Department of Public Health
- Department of Pharmacy
- Department of Applied Sociology

### 4.1.2 Administration:

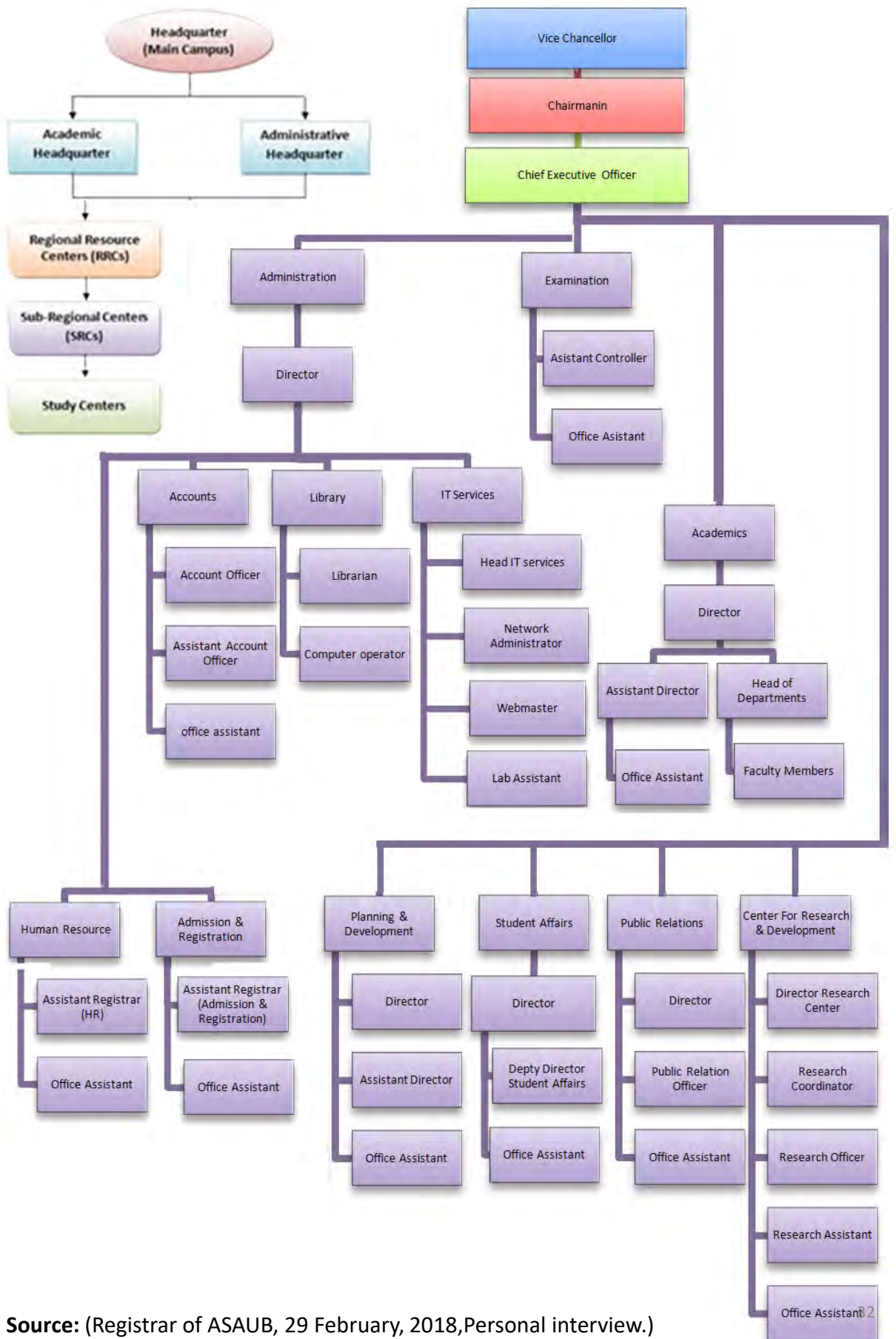
- (a) Main Office
  - Reception & Admission Office
  - Foundation Office
  - VC's office
  - Registrar's Office
  - Office Controller of Exam
  - Finance and Accounts office
- (b) Proctor & Director
  - Student Welfare
  - Treasurer's Office
  - Accounts and Finance office

### 4.1.3 Common Facilities

- Library
- Auditorium/ Multipurpose Hall
- Exhibition Space
- Indoor Games: Gymnasium, swimming pool, Basketball court
- Cafeteria

**Source:** (Registrar of ASaub, 29 February, 2018,Personal interview.)

### 4.3 ORGANOGRAM OF UNIVERSITY CAMPUS



Source: (Registrar of ASaub, 29 February, 2018, Personal interview.)



#### 4.4 PROGRAM STANDARDS

##### STANDARD : DIMENSIONAL STANDARDS :

- > Seating for auditorium - 6 sft/person
- > Lounge, Lobby- 1.4 sft/person
- > Toilets.3 W.C. 3 wash basin 4 urinals - 100 persons
- > Dining space - 12 sft/person
- > Kitchen - 25 sft/person
- > Game room- 30 sft/person
- > Seminar- 14 sft/person
- > Administrative officers
- Class-1- 200 sft/person
- Class-2 - 100 sft/person
- Class-3 - 20-50 sft/person
- > Student union office- 20 sft/person
- > Service/stair/veranda- 30% of total space
- > Dressing room - 16 sft/person
- > Make-up room - min. 100sft
- > Green room - min. 300sft
- > Restaurants - 12 sft/person
- > Workshop - min. 1500sft
- > Bookshelves - 0.1-0.2 sft/book
- > Individual carrels - 12 sft/person
- > guest rooms - 150 sft/guest

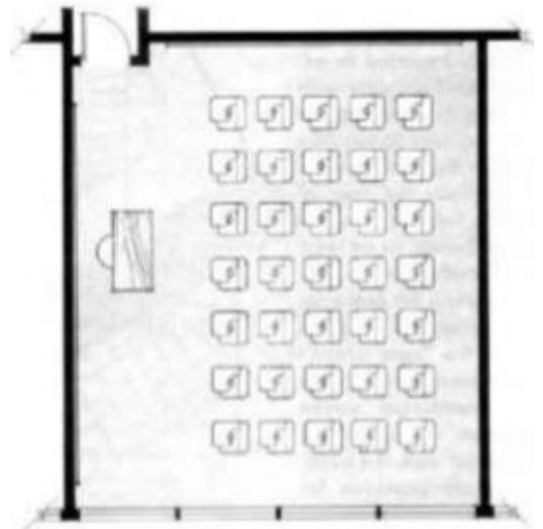


Fig1 : Seating arrangement 35 students

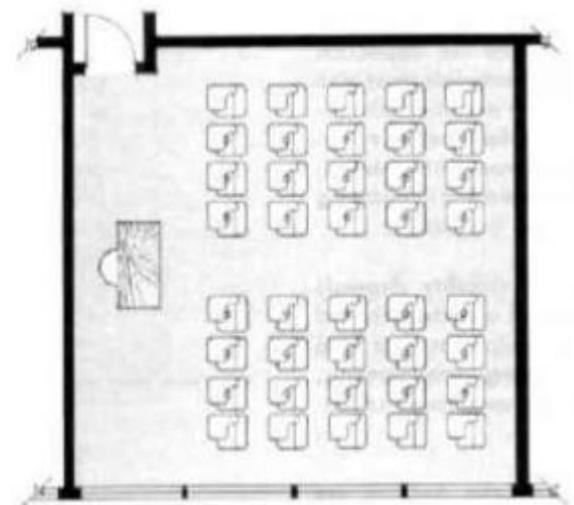


Fig2 : Seating arrangement 40 students

(Chiara J.D, Callender J, 1990, Time Saver's Standard Building types)

(Blackwell.W, 2012, Neufert's Architect Data Fourth Edition)

## CLASSROOMS (Chiara J.D, Callender J, 3<sup>rd</sup> Edition, Time Saver's Standard Building Types)

Major factors to be considered in designing a classroom are the following:

### 1. Seating and writing surfaces

2. Space and furnishings for the lecturer
3. The use of wall space, including chalkboards, screens, size and location of windows, etc.
4. Facilities for projection and television
5. Coat racks, storage, and other conveniences
6. Acoustics and lighting
7. Heating and air conditioning
8. Aesthetic considerations

Separate tablet armchairs : (Chiara J.D, Callender J, 3<sup>rd</sup> Edition, Time Saver's Standard Building types, P- 233)

-Separate tablet armchairs , This arrangement requires about 22 square feet of space per student.

-Folding tablet arms may allow 15 square feet or less per student .

Drawing table: (Blackwell.W,1990, Neufert's Architect Data Fourth Edition, P-323)

-Dimension suitable for A0 size(92 x 127)

-Each space required 3.5 m<sup>2</sup> – 4.5m<sup>2</sup> ,depending on size of drawing table

Lecture theatre: (Blackwell.W, 1990, Neufert's Architect Data Fourth Edition, P-322)

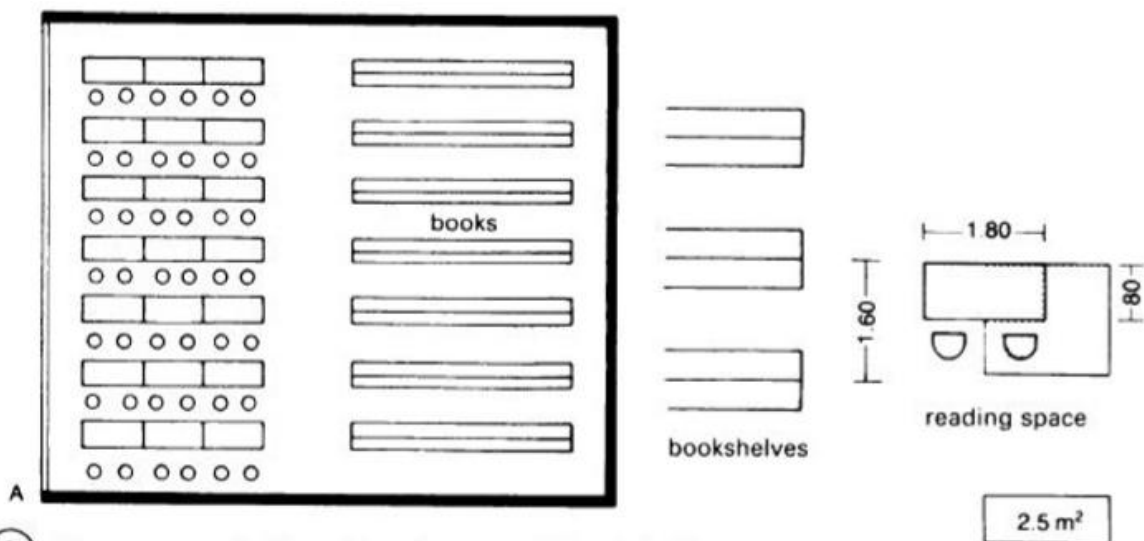
-rectangular shaped lecture theatre :0.2 -0.25 m<sup>2</sup>/ seat

-trapezoidal shape lecture theatre : 0.15 -0.18 m<sup>2</sup>/ seat

-Scientific or pre-scientific lecture theatre :0.2-0.3 m<sup>2</sup>/seat

Reading space: (Blackwell.W, 1990, Neufert's Architect Data Fourth Edition, P- 322)

Space required 2.4-2.5 m<sup>2</sup> per space



3 Arrangement of reading places and bookshelves

## LIGHTING STANDARDS :

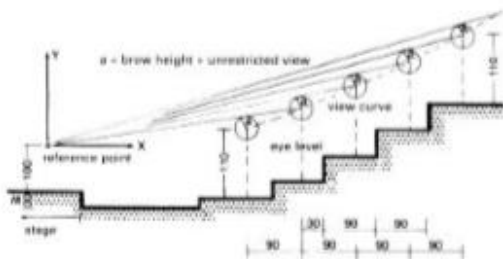
Lighting for auditorium should be specially considered as here we have to depend highly on artificial technique. The LES code recommends :-

- For vertical surface of book cases                    5-10 lumen/sft
- For reading table    30 lumen/sft
- For dining table    15-20 lumen/sft
- For kitchen     25 lumen/sft
- For game room     25-30 lumen/sft

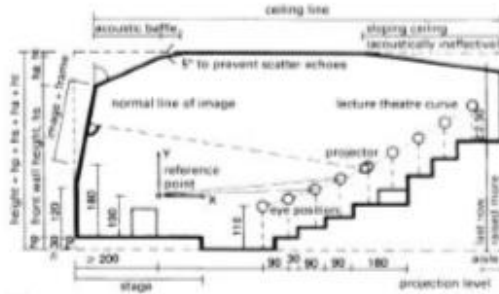
## NOISE STANDARD:

A guide to acceptable minimum levels of background noise is as follows :-

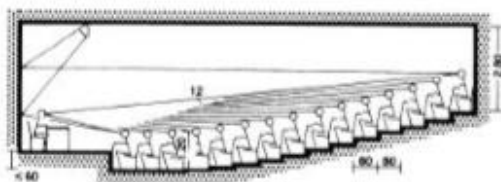
1. Quiet area 30-50 db - reading area, office room, seminar room, meeting room, class room, teachers room, guest rooms.
2. Low noise area **50-60 db**. - staff working area, tea corners, exhibition area, cultural room, game room, counter, book circulation area, dining area, Xerox room, clerical office room.
3. Noisy area **60 db** and above. - lobby area, game room, cultural room, clock room, stair, shops and restaurants, ticket counter, lounge, auditorium etc.



2 Drawing for calculating view curve



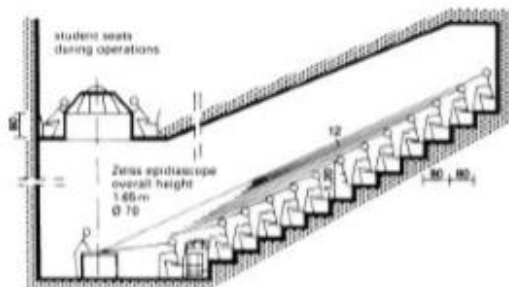
3 Long section of a lecture theatre



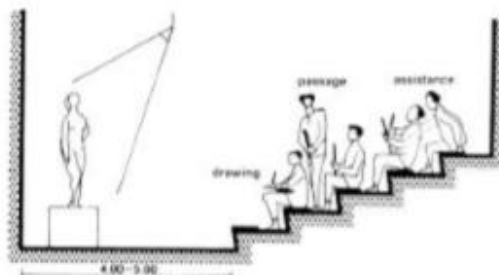
4 Standard lecture theatre shape



5 More steeply raked lecture theatre



6 Lecture theatre with demonstration table (medical)



7 Tiers in life drawing studio: 0.65m<sup>2</sup> seating space per student

## Fig: Acoustic standards

(Chiara J.D, Callender J, 1990, Time Saver's Standard Building types)

(Blackwell.W, 2012, Neufert's Architect Data Fourth Edition)

## 4.5 SPACE REQUIREMENT DETAIL

### ADMINISTRATIVE ZONE: 6560 SQFT.

	FUNCTIONS	SPACE TYPE	NO. OF USERS	AREA(SQFT)
	OFFICE LOBBY	PUBLIC	20	500
	CHAIRMAN'S ROOM	PRIVATE	1	300
	VC'S ROOM	PRIVATE	1	300
	PRO-VC'S ROOM	PRIVATE	1	300
	REGISTRAR'S OFFICE	PRIVATE	1	300
COMMON OFFICE 1	DEPUTY REGISTRAR'S ROOM	PRIVATE	2	300
	ASSISTANT REGISTRAR'S ROOM	PRIVATE	2	300
	ASSISTANT DIRECTOR'S ROOM	PRIVATE	1	300
	SENIOR EXECUTIVE'S ROOM	PRIVATE	2	300
	EXECUTIVE'S ROOM	PRIVATE	3	450
	COMMITTEE MEETING ROOM	SEMI- PUBLIC	60	1600
	RECORD ROOM	PRIVATE		200
	DOCUMENT PROCESSING ROOM	PRIVATE		200
COMMON OFFICE ROOM 2	SPECIAL ASSISTANT'S ROOM	PRIVATE	5	200
	PROCTOR'S ROOM	PRIVATE	5	250
	CO-ORDINATION OFFICER'S ROOM	PRIVATE	10	500
	TOILET	PUBLIC	100	260

### ACCOUNTS SECTION: 2000 SQFT.

	FUNCTIONS	SPACE TYPE	NO. OF USERS	AREA(SQFT)
	TREASURER'S ROOM	PRIVATE	1	300
	DIRECTOR ACCOUNT'S ROOM	PRIVATE	1	200
COMMON OFFICE ACCOUNTS SECTION	CHIEF ACCOUNT'S OFFICER	PRIVATE	1	200
	ACCOUNTS ROOM	PRIVATE	5	500
	ACCOUNTS REGISTER'S ROOM	PRIVATE	5	500
	CONFIDENTIAL RECCORD ROOM	SEMI- PUBLIC		300

### OFFICE CONTROLLER OF EXAMINANT: 3100 SQFT.

FUNCTIONS	SPACE TYPE	NO. OF USERS	AREA(SQFT)
HEAD OF CONTROLLER'S ROOM	PRIVATE	1	300
STUDENT RECORD ROOM	PRIVATE		900
CONFIDENTIAL RECORD ROOM	PRIVATE		200
DOCUMENT PROCESSING ROOM	PRIVATE	2	200
COMMON OFFICE	PRIVATE	10	1500

## AUDITORIUM: 9400 SQFT

FUNCTIONS	SPACE TYPE	NO. OF USERS	AREA(SQFT)
LOBBY AND LOUNGE	PUBLIC	300	300
WAITING SPACE	PUBLIC		2000
OFFICE	SEMI- PRIVATE	3	150
PROJECTION ROOM	PUBLIC	50	240
STAGE	PUBLIC		200
BACK STAGE	SEMI- PRIVATE	6	1500
REHEARSAL ROOM	PUBLIC		1000
LIGHT CONTROL ROOM	PRIVATE	2	200
SOUND CONTROL ROOM	PRIVATE	10	200
SEATING	PUBLIC	300	3000
TOILET	PUBLIC	6	600

## CAFETERIA: 5160 SQFT.

FUNCTIONS	SPACE TYPE	NO. OF USERS	AREA(SQFT)
LOBBY AND LOUNGE	PUBLIC	250	350
WAITING SPACE	PUBLIC		150
TEACHER'S DINING	SEMI PRIVATE	50	600
STUDENT'S DINING	PUBLIC	150	1800
OUTDOOR DINNING	PUBLIC	50	600
SERVICE (KITCHEN & STORE) 40% OF TOTAL AREA	SEMI-PUBLIC	10	1400
TOILET	PUBLIC	4	260

## OTHER FACILITIES: 2200 SQFT.

FUNCTIONS	SPACE TYPE	NO. OF USERS	AREA(SQFT)
STATIONARY SHOPS	PUBLIC		500
MAINTENANCE DEPARTMENT	PRIVATE		1000
SUBSTATION AND GENERATOR	PRIVATE		3000
PRAYER ROOM	SEMI PRIVATE	50	400

## HEALTH, FITNESS AND RECREATION: 15000 SQFT.

FUNCTIONS	SPACE TYPE	NO. OF USERS	AREA(SQFT)
RECEPTION AND INFORMATION DESK	PUBLIC	2	150
GYMNASIUM	PUBLIC	50	6000
INDOOR GAMES	PUBLIC		3000
SWIMMING POOL	PUBLIC		AS PER DESIGN
BOY'S COMMON ROOM	PRIVATE	25	1200
GIRL'S COMMON ROOM	PRIVATE	25	1200
MEDICAL CENTRE	PUBLIC		300
FIRST AID ROOM	PUBLIC		200

## CENTRAL LIBRARY: 4610 SQFT.

	FUNCTIONS	SPACE TYPE	NO. OF USERS/ QUANTITY	AREA(SQFT)
	ENTRY LOBBY & PEGION HOLE	PUBLIC	350	500
	FRONT DESK	PUBLIC	2	150
COMMON OFFICE	LIBRARIAN'S OFFICE	PRIVATE	1	150
	GENERAL OFFICE ROOMS	SEMI-PRIVATE	5	150
	ASSISTANT LIBRARIAN'S OFFICE	PRIVATE	3	150
	BOOK READING SPACE	PUBLIC	350	2100
	BOOK SHELF SPACE	PUBLIC	20 SHELVES	600
	BOOK STORAGE ROOM	PRIVATE		200
	ARCHIVE SECTION	PRIVATE		300
	PHTOCOPYING AREA	PUBLIC	2 MACHINES	50
	TOILET	PUBLIC	3WC, 3 BASIN,3 URINAL (2)	260

FUNCTIONS	AREA(SQFT)
CIRCULATION/ SERVICE/TERRACES/ EXHIBITION GALLERY	(30% OF TOTAL SPACE)

**ACADEMIC BUILDING: 95810 (96000) SQFT.**

**DEPARTMENT OF BUSINESS ADMINISTRATION**

	FUNCTIONS	NO. OF USER	QUANTITY	REQUIRED AREA (SQFT)	TOTAL AREA
	CLASS ROOMS	35	25	600	15000
	OPEN STUDY ROOMS	50	1	750	750
	COMMON LOUNGE	30	1	-	600
	EXAM HALL (IF NEEDED)	-	-	-	-
	TOILET		12	20	300
FACULTY	HEAD OF DEPARTMENT	1			150
	COMMON OFFICE FOR FACULTY MEMBERS	40			800
	PROFESSOR	5			500
	ASSOCIATE PROFESSOR	5			500
	ASSISTANT PROFESSOR	5			500
	SENIOR LECTURE	5			500
	JUNIOR LECTURE	5			500
	DEAN'S ROOM	1			150
	DCO OFFICE	1			100

**TOTAL= 19200+ 30%=25740 SQFT.**

**DEPARTMENT OF LAW: 17615 SQFT.**

	FUNCTIONS	NO. OF USER	QUANTITY	REQUIRED AREA (SQFT)	TOTAL AREA
	CLASS ROOMS	35	15	600	9000
	STUDY ROOMS WITH LAW LIBRARY	50	1	750	750
	COMMON LOUNGE	30	1		600
	MOOT COURT SESSION ROOM				400
	TOILET		12	20	300
FACULTY	HEAD OF DEPARTMENT	1			150
	COMMON OFFICE FOR FACULTY MEMBERS	40			800
	PROFESSOR	2			200
	ASSOCIATE PROFESSOR	2			200
	ASSISTANT PROFESSOR	3			300
	SENIOR LECTURE	3			300
	JUNIOR LECTURE	3			300
	DEAN'S ROOM	1			150
	DCO OFFICE	1			100

**TOTAL= 13550+ 30%= 17615 SQFT.**

## DEPARTMENT OF PHARMACY: 21710 SQFT.

	FUNCTIONS	NO.OF USER	QUANTITY	REQUIRED AREA (SQFT)	TOTAL AREA
	CLASS ROOMS	35/ CLASS	8	600	4800
	OPEN STUDY ROOMS	50	1	750	750
	COMMON LOUNGE	30	1		200
	EXAM HALL (IF NEEDED)	-	-	-	-
	TOILET		12	20	300
<b>FACULTY</b>	HEAD OF DEPARTMENT	1			150
	COMMON SPACE FOR FACULTY MEMBERS	12			250
	PROFESSOR	3			300
	ASSOCIATE PROFESSOR	3			300
	ASSISTANT PROFESSOR	3			300
	SENIOR LECTURE	3			300
	JUNIOR LECTURE	3			300
	DEAN'S ROOM	1			150
DCO OFFICE	1			100	
<b>LAB</b>	PHARMACEUTICAL TECHNOLOGY LAB	25	1		800
	BIOPHARMACEUTICAL & COSMETOLOGY	25	1		1000
	MICROBIOLOGY LAB	25	1		1200
	RESEARCH LAB	25	1	800	1600
	PHYSIOLOGY & PHARMACOLOGY LAB	25	1	400	800
	ONORGANIC & INORGANIC LAB	25			800
	MEDICAL AND PHOTOCHEMICAL LAB	25			900
	STERILE PRODUCT AREA				400
	INSTRUMENT ROOM				600
	ANIMAL ROOM WITH PREPERATION AREA				400

**TOTAL= 16700+ 30%  
=21710 SQFT**



**DEPARTMENT OF PUBLIC HEALTH: 6760 SQFT.**

	<b>FUNCTIONS</b>	<b>NO.OF USER</b>	<b>QUANTITY</b>	<b>TOTAL AREA</b>
	CLASS ROOMS	35/ CLASS	3	1800
	OPEN STUDY ROOMS	30	1	500
	SEMINAR ROOM	35	1	750
	EXAM HALL (IF NEEDED)	-	-	-
	TOILET		12	300
<b>FACULTY</b>	HEAD OF DEPARTMENT	1		150
	COMMON SPACE FOR FACULTY MEMBERS	12		250
	PROFESSOR	2		200
	ASSOCIATE PROFESSOR	2		200
	ASSISTANT PROFESSOR	2		200
	SENIOR LECTURE	3		300
	JUNIOR LECTURE	3		300
	DEAN'S ROOM	1		150
	DCO OFFICE	1		100

**TOTAL= 5200+ 30%  
=6760 SQFT**

**DEPARTMENT OF APPLIED SOCIOLOGY: 9165 SQFT.**

	<b>FUNCTIONS</b>	<b>NO.OF USER</b>	<b>QUANTITY</b>	<b>TOTAL AREA</b>
	CLASS ROOMS	35/ CLASS	6	3600
	STUDY ROOMS WITH LIBRARY	30	1	750
	SEMINAR ROOM	35	1	750
	EXAM HALL (IF NEEDED)	-	-	-
	TOILET		12	300
<b>FACULTY</b>	HEAD OF DEPARTMENT	1		150
	COMMON SPACE FOR FACULTY MEMBERS	10		200
	PROFESSOR	2		200
	ASSOCIATE PROFESSOR	2		200
	ASSISTANT PROFESSOR	2		200
	SENIOR LECTURE	3		300
	JUNIOR LECTURE	3		300
	DEAN'S ROOM	1		150
	DCO OFFICE	1		100

**TOTAL= 7050+ 30%  
=9165 SQFT**

**DEPARTMENT OF ENGLISH: 6110 SQFT.**

	<b>FUNCTIONS</b>	<b>NO.OF USER</b>	<b>QUANTITY</b>	<b>TOTAL AREA</b>
	CLASS ROOMS	35/ CLASS	11	6600
	STUDY ROOMS	30	1	750
	SEMINAR ROOM	35	1	750
	LOUNGE			500
	TOILET		12	300
<b>FACULTY</b>	HEAD OF DEPARTMENT	1		150
	COMMON SPACE FOR FACULTY MEMBERS	30		600
	PROFESSOR	3		300
	ASSOCIATE PROFESSOR	3		300
	ASSISTANT PROFESSOR	3		300
	SENIOR LECTURE	3		300
	JUNIOR LECTURE	3		300
	DEAN'S ROOM	1		150
	DCO OFFICE	1		100

**TOTAL= 11400+ 30%  
=14820 SQFT**

## CHAPTER 5: CASE STUDY

### 5.1 Case Study 1: East West University

This campus was studied in order to understand its zoning and programs, to study how it works in urban context and its function. This is a very contemporary in style design and suits the climatic factor of our country very well. The way lights penetrates and the central courtyard in a urban high-rise building is an element which is very common practice in architecture around South Asia.



East West Campus

### 5.2.1 PROJECT BRIEF

**Architect:** Bashirul Haq and Associates

**Site Area:** 2.46 Acre

**TBA:** 5, 84,596 Sq. ft.

**Maximum Height:** 110 ft. (9 storied)

**Program:** Academic and Administrative

**Facilities:** Auditorium, Lecture Halls, Cafeteria,  
Gymnasium, Club rooms, Central library etc.

**Materials:** Brick, Concrete, Wood, Glass, Corrugated  
tin etc.

**Structure:** Re-enforced concrete

**Car Parking:** 211 nos

**Location:** AftabNagar, Badda, Dhaka.

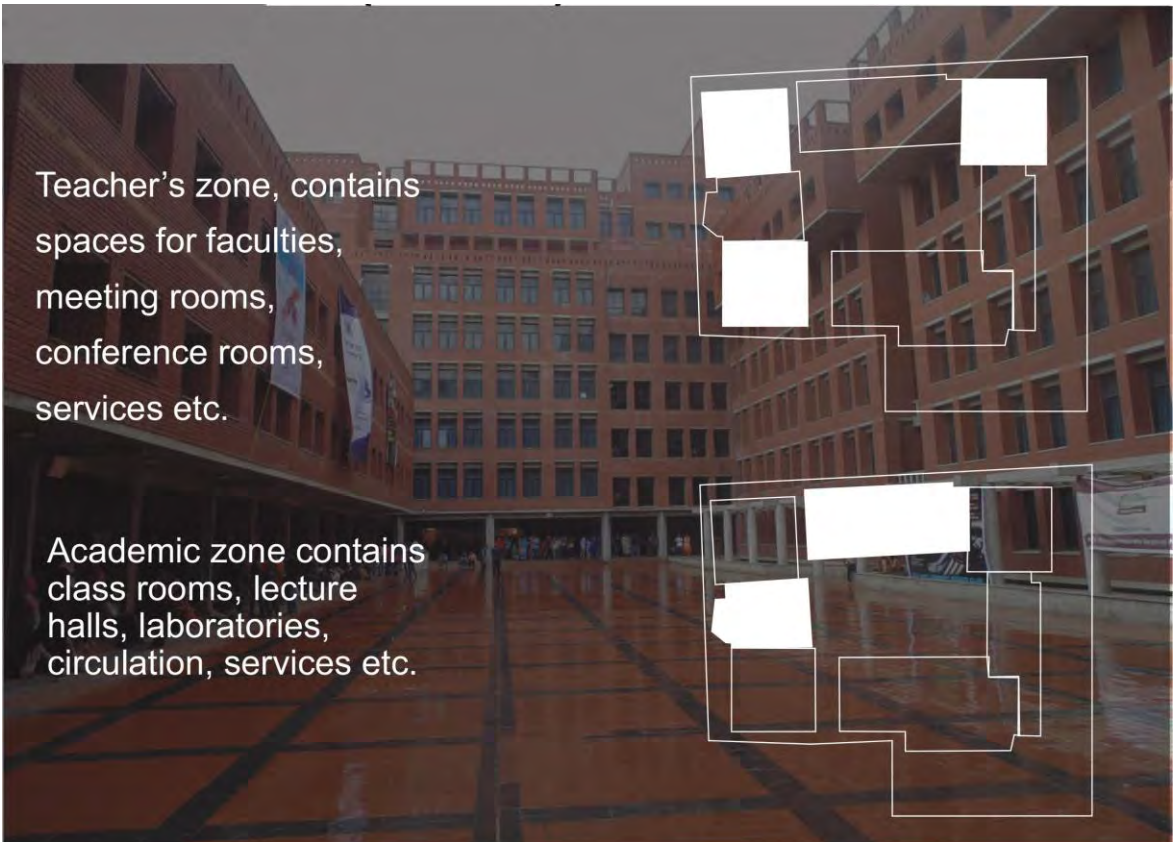


The campus is located in the densely populated area of Aftab Nagar, within the Badda mouza. It sits parallel to the DIT road, overseeing the Hatirjheel project.

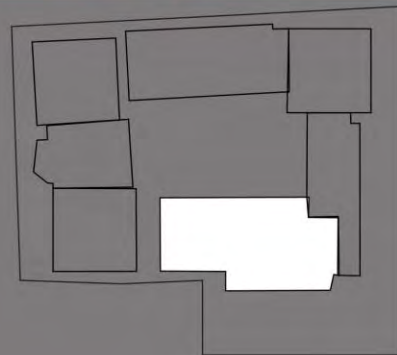
As one of the many built or proposed university city campuses in the Dhaka Metropolitan Area, it faces the challenges of the issue of developing an architecture which wasn't seen before this century. Almost housing more than eight departments with minimum facilities required.

East West Campus Location

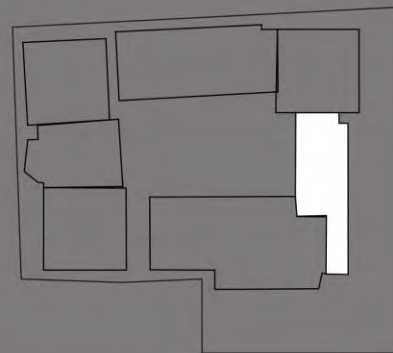
## 5.2.3 ZONING



Facilities zone contains auditorium, gymnasium, club rooms, indoor sports, services etc.



Administrative zone contains Vc's office, Pro-VC's office, Registrar's office, Foundation's office etc.





①

central court



②

lobby in front of prayer space



③

lobby of admin



④

corridor



⑤

central lobby



⑥

entry porch











cafeteria roof



cafeteria

- cafeteria 
- basketball zone 
- students lounge 
- core 
- substation 
- teachers lounge 



semibaseement



cafeteria lobby



basketball playing zone



students lounge



double loaded corridor of classroom



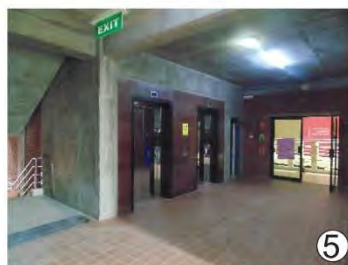
terrace



corridor of faculty block



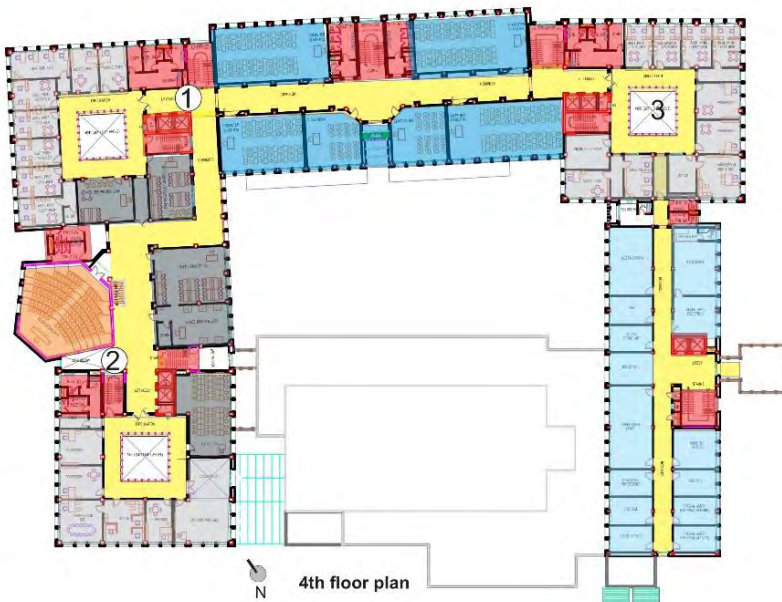
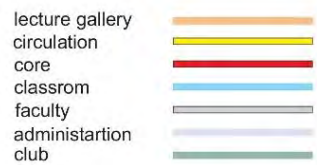
lecture gallery



lift lobby







## 5.2.4 SECTIONS



**BUILDING SECTION**

SCALE: 1/8" = 1'-0"



**BUILDING SECTION**

SCALE: 1/8" = 1'-0"

The section shows the proportion of masses of the building. The auditorium mass is 4 story in height that allows sun to penetrate into the interior court and academic zone located at the northern side of the building. There are light wells that floods the internal void of the Teacher's zone located on both east & west of the building. The segregation of the program clusters are very clearly seen in the project and placed according to appropriate orientation.

### **5.2.5 DESIGN CONSIDERATION IN COMPARISON WITH ASaub PERMANENT CAMPUS**

- Required total built up area of 5, 84,596 Sq. ft on 2.46 acre site which leads to vertical development. The site is almost as compact as ASA University Permanent Campus.
- There is a flight plan limitation which leads to a height limitation of 110 ft which is similar to ASA University Campus Site)
- The campus is designed to serve at least 10,000 students which is 3 times more accommodation than ASA University within only 2 times larger land area.
- The building is in between high-rise buildings which will be same for ASA University Campus project

### **5.2.6 FINDINGS FROM STUDY**

#### **> POSITIVE FINDINGS**

- material brick is properly used for facade treatment
- cavity wall is used for climatic consideration
- massing of the building allows the southern breeze to come and bounce over the courtyard and building.
- functions and space quality is very good

#### **> NEGATIVE FINDINGS**

- east-west north, south elevation treatment are almost same so it is very
- difficult to identify the zoning of the mass.
- most of the circulation spaces and central lobby always remain dark.
- There is not enough green spaces and function is not segregated from 5th floor

## 5.2.7 VISUAL OBSERVATION



Stairs and corridors



Circulation area is clearly visualized when student go out from the classrooms



Vertical circulation is very good and well ventilated



Natural and Artificial light



Interesting voids are created beside corridors and stairs so that natural light can spread from top to bottom level of building



Central Courtyard



Artificial Lights mostly Used



Atrium



## 5.2 CASE STUDY 2: NORTH SOUTH UNIVERSITY (NSU)

This campus was studied in order to understand its zoning and programs, to study how it works in urban context and its function as it provides appropriate physical facilities including classroom, labs and library with state of the art educational technology, with other co-curricular facilities

### 5.2.1 PROJECT BRIEF OF NSU

**Dhaka Site Area:** 5.5 Acre

**Site Floor Area:** 898,000 sq. ft.

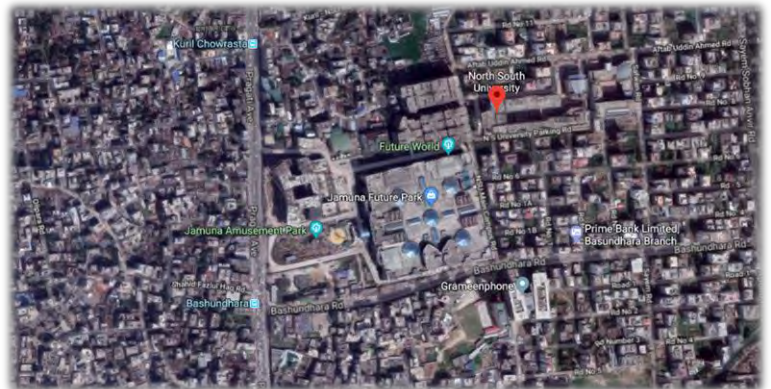
**Client:** North South University

**Construction:** January 30, 2003

**Completed:** 2009

**Inaugurated:** June 9, 2009

**Location** Plot 15, Block B, 1229, Dhaka it is located in Bashundhara, Dhaka, Bangladesh



North South University Campus

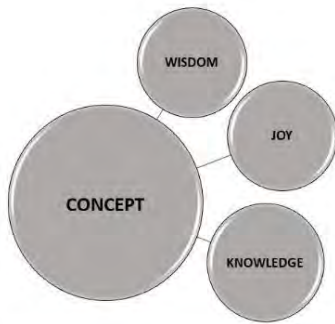
### **5.2.2. BRIEF HISTORY OF North SOUTH**

North South University was established and approved by the government in 1992, under the Private University Act (PUA) 1992. It was officially inaugurated on February 10, 1993 by the Prime Minister of Bangladesh. They started their journey with 137 students and only 3 departments: Business administration, Computer science and Economics and later other subjects were introduced. It is considered to me an English medium institute, offers a number of Undergraduate and Masters degrees in the fields of Business Administration, Computer Science, Environmental Studies (DES), General and Continuing Education (GCE), Electrical and Telecommunications Engineering, Electrical and Electronic Engineering , Life Sciences, Pharmacy, Environmental Management, Economics, English, Architecture, etc.

### **5.2.3 DESIGN CONSIDERATION IN COMPARISON WITH ASaub PERMANENT CAMPUS**

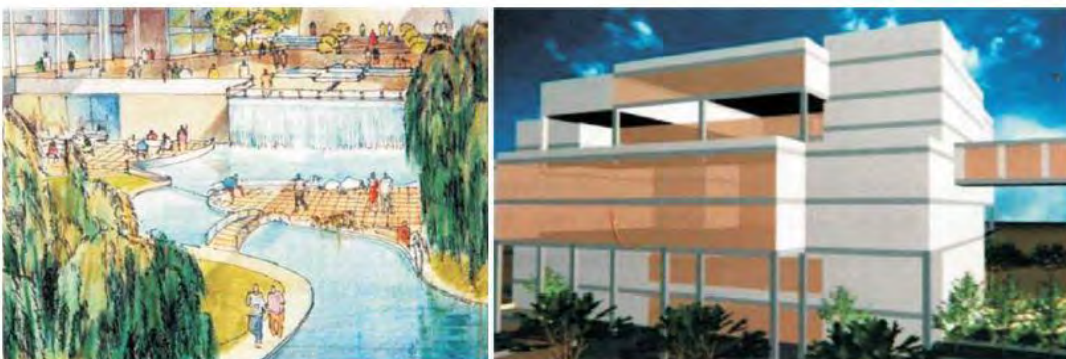
- Required total built up area of 8, 98,000 sft on 5.5 acre site which leads to vertical development.
- There is a flight plan limitation which leads to a height limitation of 110 ft which is similar to ASA University Campus Site)
- The campus is designed to serve at least 15,000 students which is 5 times more accommodation than ASA University within only 2 times larger land area.
- The building is in between high-rise buildings which will be same for ASA University Campus project

#### 5.1.4 CONCEPT OF NORTH SOUTH CAMPUS



- The design is evolved around one guiding theme of having a vast open space at the contracting as the main hub of campus and come alive with a life of its own with the most important occupants, the students.

- Administration and prayer hall at the two ends of east-west axis respectively having the academic blocks named North and South block.
- Administration and admission at east having direct access for all and also acts as the head campus accommodating governing body and faculty- the beginning of learning, the true essence of wisdom.
- For universal access one level site platform sloped up from road.
- A raised plaza approached by grand steps and landscaped features around with the welcoming gesture of the auditorium gives a person the warm feeling of arrival.
- This plaza opens a view to the central open space of the university and into the heart of student activity.
- Various entrances for outside visitors considering direct access for students to their academic blocks.



(Kaiser. K. M. A, 2005, Report of NSU)

## **5.2.5. VERTICAL ZONING**

### **ADMINISTRATIVE BUILDING**

- > Ground floor – entrance lobby, information desk
- > First floor – registrar/faculty/lounge and cafeteria
- > Second floor – registrar / accounts / administration and engineering department
- > Third floor – VC's office/service and alumni offices
- > Fifth floor – guest rooms
- > Conceived as a square block with diagonally placed service cores
- > The dome of this block marks the beginning of axis and gives a grand entry for officials and external visitors
- > Administration block is self-sufficient and introvert planned
- > A link is kept between academic block to administration

### **ACADEMIC BUILDING IN NORTH AND SOUTH**

- > Ground and first floor – class room and examination hall
- > Second floor – class room and laboratory
- > Third floor – laboratories and student activity center
- > Fourth, Fifth, sixth, seventh and eighth floor – individual departments

### **AUDITORIUM BUILDING (SERVES EXTERIOR AND INTERIOR AFFAIRS)**

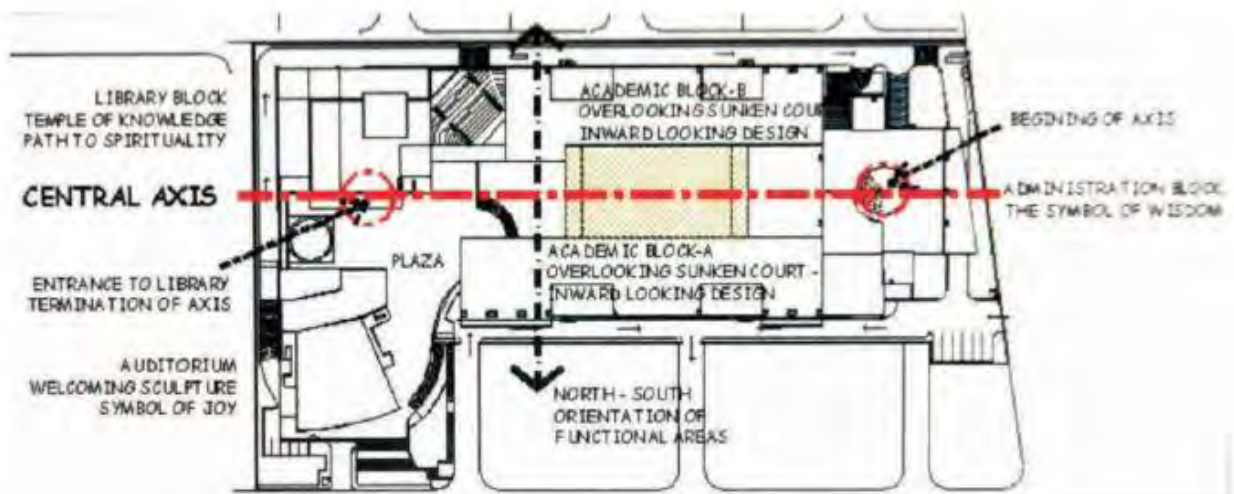
- > Lower plaza level – swimming pool
- > Upper plaza level– student's center
- > Second and third floor – main library
- > Fourth and fifth floor – information center
- > Sixth and seventh floor – information center
- > Eighth and ninth floor – Architecture department



## LIBRARY BUILDING

- > Lower plaza level – swimming pool
  - > Upper plaza level and mezzanine floor –students center
  - > Second and third floor – main library
  - > Fourth and fifth floor – information system center
  - > Sixth and seventh floor – information system center
  - > Eighth and ninth floor – Architecture department
  - > Library is at the end of east-west axis with separate entrance to cafeteria and health facility
  - > Maximum glazing to have maximum light at the interior
  - > The ground floor and the mezzanine floor has been dedicated students center
  - > Department of architecture is on the top of library building
  - > Grand entry and structural elements creates an image of welcoming environment >
- Accommodation is not sufficient for students

## BASEMENT AND SERVICES



## 5.3 CASE STUDY 3: AHSANULLA UNIVERSITY OF SCIENCE AND TECHNOLOGY

### 5.3.1 PROJECT BRIEF



This campus was studied in order to understand its zoning and programs, to study how it works in urban context and its function as it provides appropriate physical facilities including classroom, labs and library with state of the art educational technology, with other co-curricular facilities. It has many elements that also make this a interactive social campus.

### 5.3.2 SITE LOCATION AND SURROUNDING



Front side of road



Milk vita centre



ENT Institute

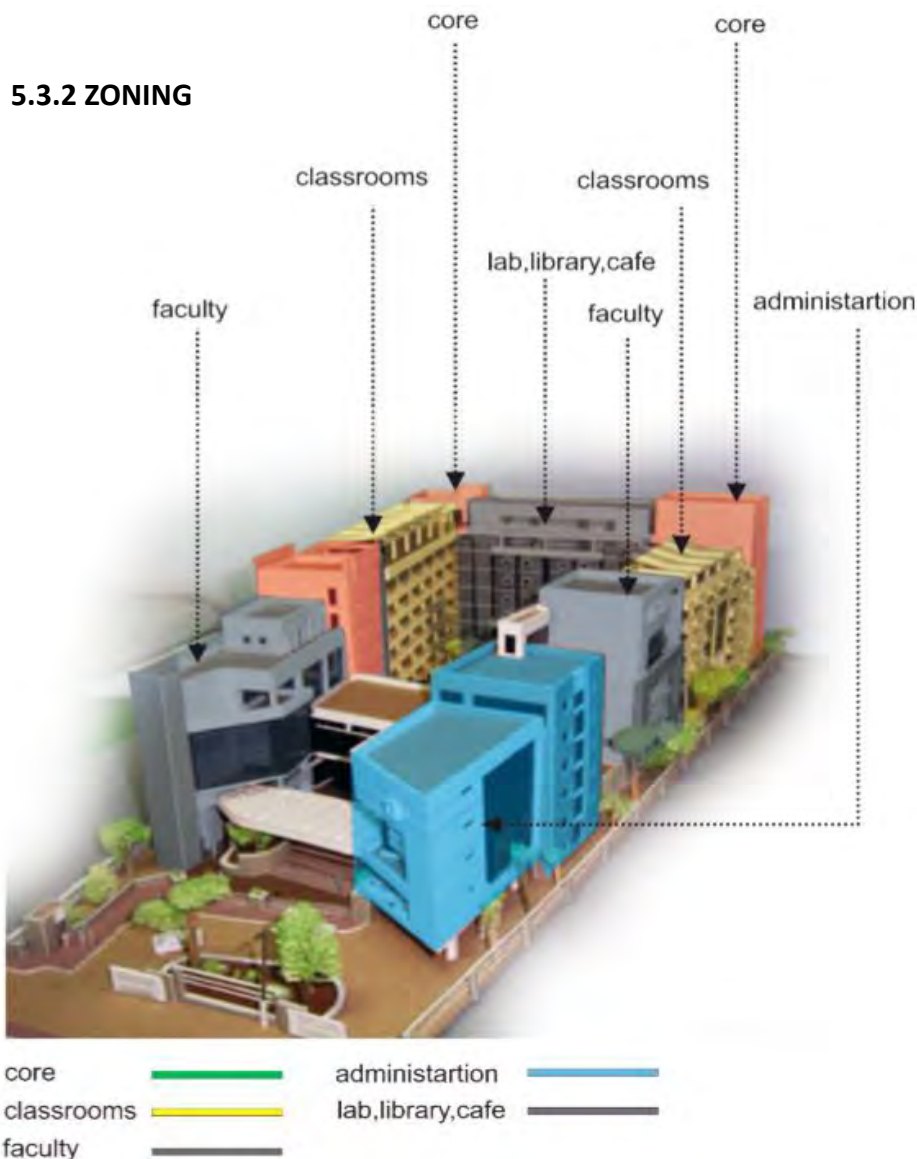


Shomokal Office

### 5.2.5 DESIGN CONSIDERATION IN COMPARISON WITH ASaub PERMANENT CAMPUS

- Required total built up area of 150331 Sq. ft on 1.5acre site which leads to vertical development. The site is even more compact as ASaub Permanent Campus.
- There is a flight plan limitation which leads to a height limitation of 110 ft which is similar to ASaub University Campus Site)
- The campus is designed to serve at least 60000 students which is 1.5 times more accommodation than ASaub University within a compact land area.
- The building is in between high-rise buildings which will be same for ASaub University Campus project

### 5.3.2 ZONING





1

court



12

paranoma view



2

cafeteria



3

substation



4

circulation space  
besides court



indoor game 5



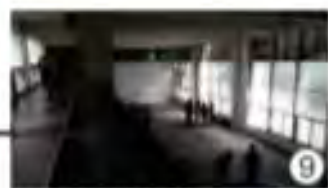
6

programme stage



7

entrance gate



basketball zone 9



bank 10



multipurpose 11

ground floor plan

total site area-72.700 sft  
build area-77%  
open area-12%  
drive way -11%

name	dimension	area
multipurpose hall	87'x 64'	5468 sft
medical room	50'x 20'	1000 sft
cafeteria	dining	4513 sft
	kitchen	1000 sft
store	20'x 20'	400 sft
teachers lounge	40'x 30'	1200 sft
girls common room	54'x 25'	1600 sft





core



lab



arch studio  
civil class room



administration  
civil faculty

name	no of room	area
civil faculty		2500 sft
admin		3000 sft
archi class room	3	4000 sft
civil lab	8	6200 sft
civil class room	6	3400 sft
archi faculty		2600 sft



2nd floor plan



arch faculty



terrace



name	no of room	area
E.E.E faculty		3100 sft
admin		3900 sft
archi class room	4	4000 sft
eee lab	8	6200 sft
eee class room	4	3700 sft

3rd floor plan





name	no of room	area
E.E.E faculty		3100 sft
admin		3900 sft
archi class room	3	4000 sft
archi lab	2	1300 sft
eee class room	5	3700 sft

4th floor plan



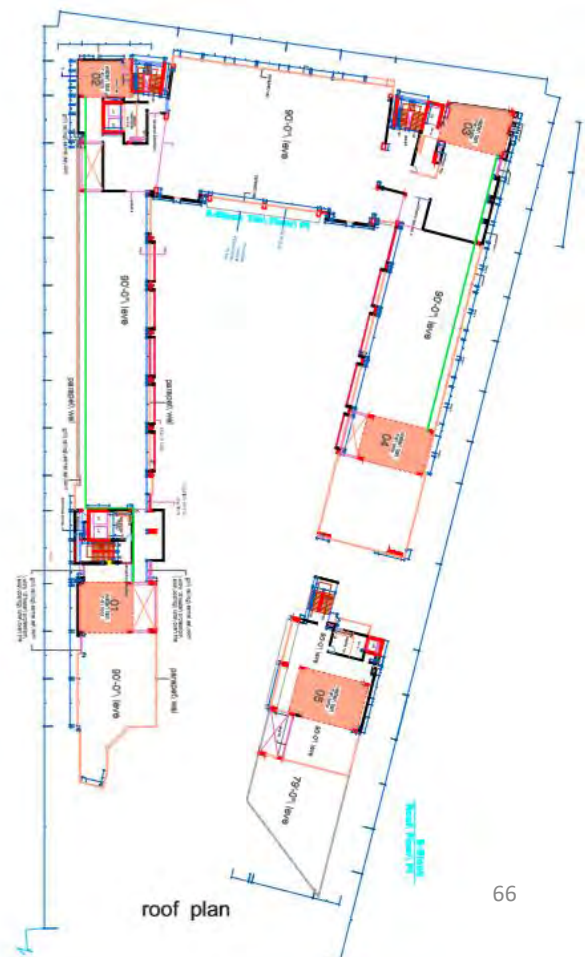
5th floor plan



6th floor plan



7th floor plan



roof plan

## 5.4 CASE STUDY 4: IMM UNIVERSITY CAMPUS, BANGALORE



This campus was studied because this is a University located in India. The climate in India is tropical and quite similar to the climate of Bangladesh. This is example of the language architecture should have around South Asia. The IIMB campus is a destination and a pilgrimage for students of architecture and practising architects. This is one of the very appreciated designed campus by the Pritzker Architecture Prize winner 2018 Architect Dr. Balkrishna Doshi. Starting from the concept, structure, spatial and communal spaces, it is contextual in terms of climatic and regional aspects.

### 5.4.1 PROJECT BRIEF:

**Date of establishment:** 1971

**Architect:** Architect Dr. Balkrishna Doshi

**Site area:** 102 acres

**Topography:** Undulating terrain with gentle slope

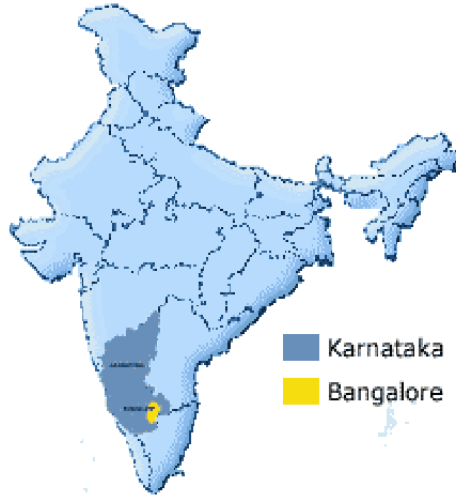
**Climate:** Temperature arid climate.

**Vegetation:** Lush green belt of tropical rain forest, beautifully landscaped and maintained.

**Context:** Urban setting , linked by a highway.

**Programs:**

- > Schools
- > Kitchen and dining block
- > Faculty housing
- > Staff housing
- > Married student housing
- > Community facilities
- > Parking
- > Dormitories
- > Transit
- > Housing MDP Centre
- > MDP center



**Location:** Site is in hilly area in south Bangalore on Banerghatta, India.



The 54,000 sq mt IIM B complex, built on a 100-acre campus, is based on the design of the town of Fatehpur Sikri, laid out by Akbar in the 16th century. The architect, B V Doshi, achieved this vision by linking a network of corridors, courtyards and external spaces allowing for future extensions.

### 5.4.2 DESIGN CONCEPT:



Fatehpur Sikri's courtyards and the gardens of Bangalore merged in B V Doshi's mind's eye. He picked up the gardens and put them in the courtyards, and the vision for a 'global' campus was born. Instead of courtyards that are dry and rigid, he made green corridors, which allow for academic exchanges to be carried beyond the classroom.



Fatehpur Sikri → IIM Bangalore

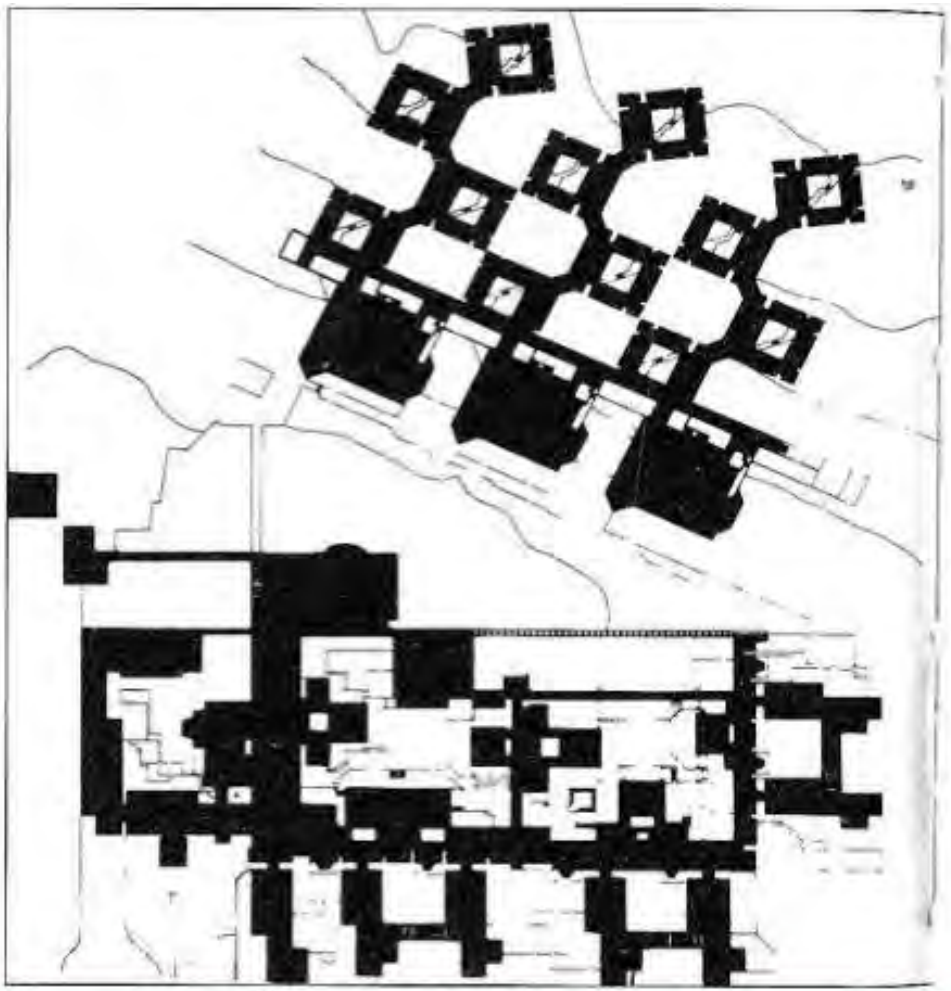


Fatehpur Sikri → IIM Bangalore



Moreover, the design of IIMB reflects the architect's perfect sense of scale, proportion and light. The logo depicts the rays of the rising sun to the design of the IIMB complex, light plays a crucial role.

#### 5.4.3 MASTER PLAN



#### 5.4.4 STRUCTURE

> IIMB's design therefore symbolizes a deep understanding of the past and a comfortable relationship with the present. The aim, said B V Doshi, was "to create an atmosphere where you don't see divides and doors".

> The 'building' includes external spaces, and the links between the buildings in the Bangalore climate permit academic exchange beyond the classrooms.



> The functional and physical attributes of its design are related to the local traditions of pavilion-like spaces, courtyards, and ample provision for plantations.

> A good integration of climatical factors ,the 'Sun Path diagrams', and proper implementation of 'Vastu Shashtra' was one of the best qualities of B.V.Dodhi's architecture.

> A perfect blend of modern and traditional architectural style

> The functional and physical attributes of its design are related to the local traditions of pavilion-like spaces, courtyards, and ample provision for plantations.

> A good integration of climatical factors ,the 'Sun Path diagrams', and proper implementation of 'Vastu Shashtra' was one of the best qualities of B.V.Dodhi's architecture.

> A perfect blend of modern and traditional architectural style

> Access to classrooms and administrative offices is provided through these corridors.

> ☐The design offers students and faculty the ability to see and feel nature even when inside the classroom.

> Three-storied hallways, open quadrangles with ample area for greenery, a rough texture finish are the unique features of this 'global' design.



- > The voids in the structure lets in the fresh air from the green surroundings.
- > The pergolas and geometrical roofs let in the controlled 'Sun Light' creating a dramatic effect and eventually avoiding the excess heat from entering in.

#### 5.4.5 VISUAL OBSERVATIONS



#### THE HALLWAYS





**SKYLIGHT IN LIBRARY**



**STAIRS AND STAIRWAYS**

**SOURCES:**

(Retrieved from <http://iimb.ac.in/about-iimb/architecture>)

## CHAPTER 6 : DESIGN STATEMENT

The aim of this project is to create a “Well designed campus”- which means, the campus shall have the following transformations in design.

### **1. Commuter campus to a convenient campus:**

A campus is no more commuter but a convenient campus, when students want to spend their time more *in the campus not only for classes but also to spend time for hangouts and use the campus as their playground. That is, convenient campus allows the students to work, socialize and learn.*

### **2. Isolated campus to a contextual campus:**

This is to improve the relationship of the university with its surrounding neighborhood are the social and economic aspects of campus planning, highlighting the significance of campus context. Contextual campus is campus that bring the surrounding infrastructures and site forces to work together with the campus together.

**3. Fragmented campus to a cohesive campus:** The physical goals of campus design is to improve the Legibility, Imageability and identity of campus. This set of objectives can create the transformation termed as cohesive campus. Cohesive campus is similar to what described as “a designed place, as deliberately perceived by its builders to impart a distinct aesthetic effect,” or “the campus as a work of art.” (M. Perry Chapman, 2006, In search of 21<sup>st</sup> century campus)

**4. Brown campus to an ecological campus:** This strategy is about making an ecological campus through the principles of sustainability, landscape design, implementation of green roofs etc.

Based on these dimensions, the “Well-Designed Campus”- the intersection of the four big ideas-is conceptualized as a mixed, compact, well-connected, well-structured, inhabited, green and urbanized campus.

However, this concept was concluded by analyzing 50 randomly selected university campus master plans in the United States, the top 10 objectives and 100 recommendations were extracted from the selected master plans.

(Hajrasouliha.A.H, 2015, Campus design for a Sustainable and Livable Learning environment)

The proposal developed for ASaub campus planning has a vision for rethinking the relationship between pedagogy, architectural space, and sustainability of future learning environment.

This intervention seeks to unify the ASA University's identity with its urban context, at the same time, signifies the aspirations towards the future of institutional planning.

**Phase 1:** Meshing into an evolving urban fabric

- reflecting upon present and proposed site conditions; dealing with changing patterns.
- Developed sense of belonging- ensuring physical connectivity with its surrounding.

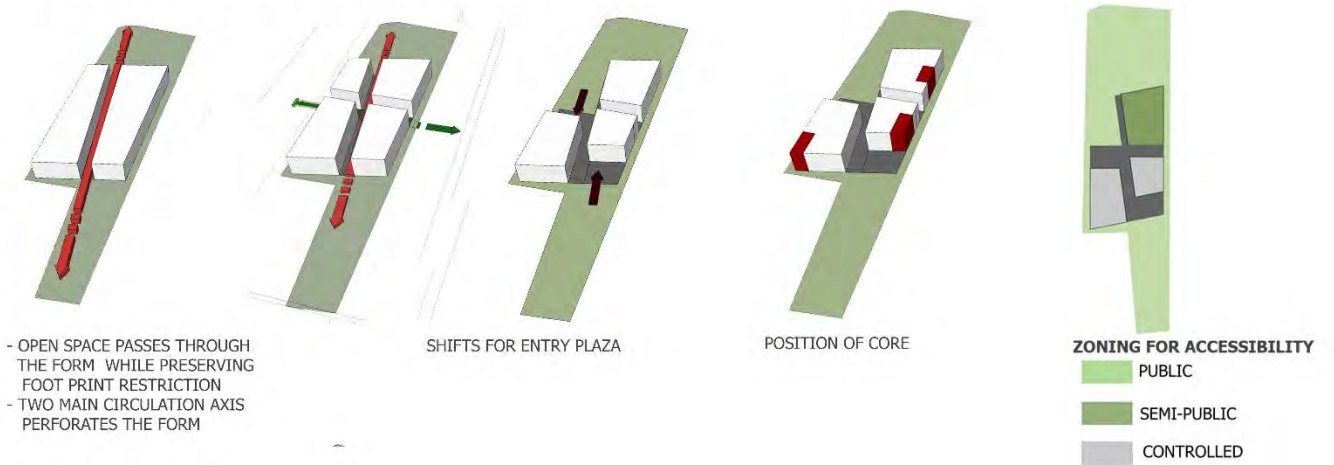
**Phase 2:** Evolution of form following activities

- Two main axis perforates the form for public accessibility and opens the building towards the city outside and the shared environment inside, preserving foot print restriction
- Synergies: The campus and the city unifies their diverse activities at the heart of the student center. Also, all faculties, activities are interconnected via multiple indoor plazas.

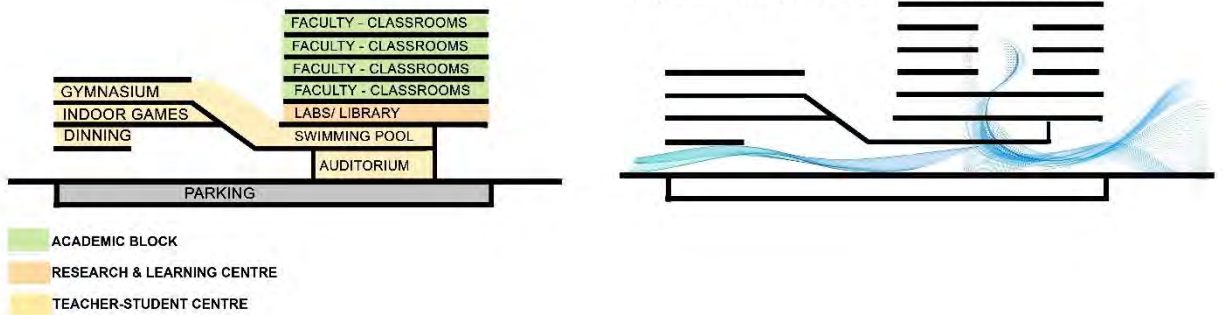
### PHASE ONE: MESHING INTO AN EVOLVING URBAN FABRIC



### PHASE TWO: EVOLUTION OF FORM FOLLOWING ACTIVITIES

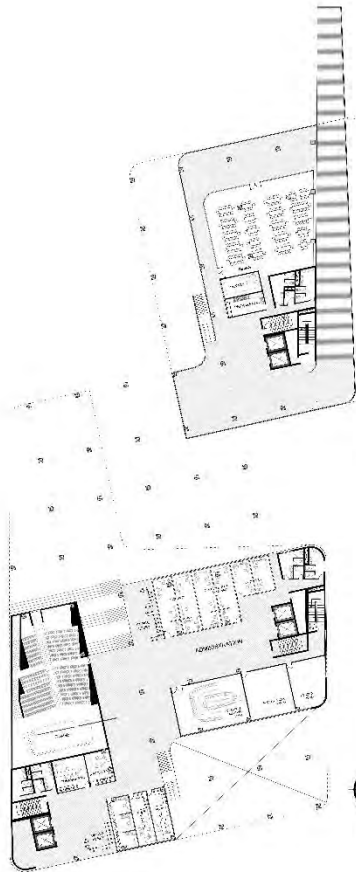


### PHASE THREE: WEAVING SUSTAINABILITY

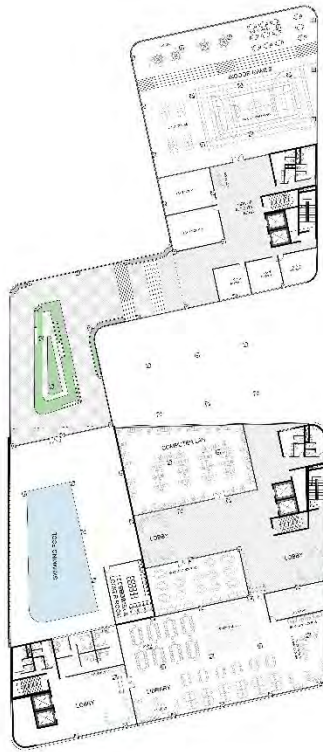


### Phase 3: Weaving sustainability

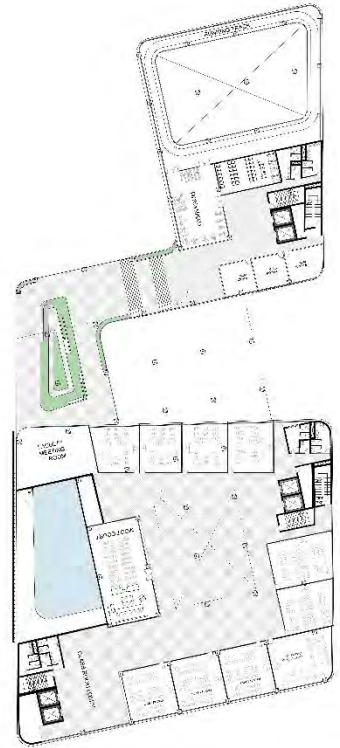
-Climatic considerations and conservation of resources



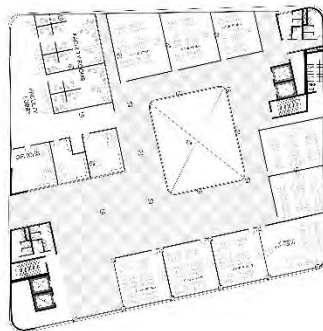

**FIRST FLOOR PLAN**  
 SCALE: 1/16"=1'-0"



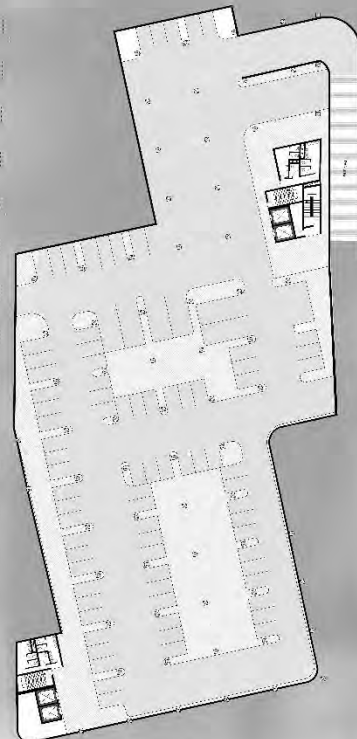

**SECOND FLOOR PLAN**  
 SCALE: 1/16"=1'-0"



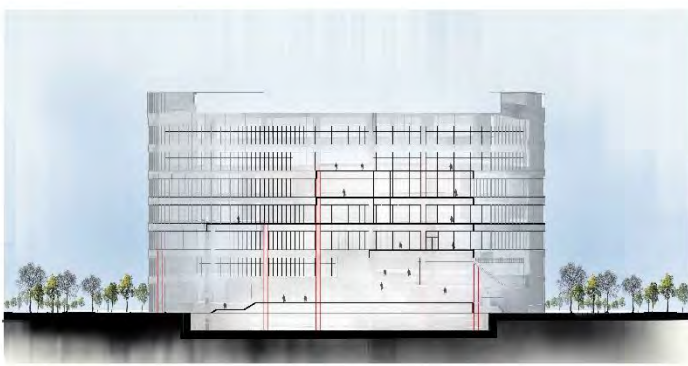

**THIRD FLOOR PLAN**  
 SCALE: 1/16"=1'-0"




**FORTH FLOOR PLAN**  
 SCALE: 1/16"=1'-0"




**BASEMENT PLAN**  
 SCALE: 1/16"=1'-0"



SECTION AA''



SECTION BB''



EAST ELEVATION



WEST ELEVATION



SECTIONAL ELEVATION



## REFERENCES

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