

Amit Kumar

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ARCHITECTURAL
PORTFOLIO

BACHELORS OF
ARCHITECTURE
2015-2021

SELECTED WORKS OF
Amit Kumar

LOVELY SCHOOL OF ARCHITECTURE &
DESIGN - LPW - BHAGWADA

CV

CURRICULUM
VITAE



AMIT KUMAR
BACHELOR OF
ARCHITECTURE



“ To me, architecture is an art, naturally, and isn't architecture unless it's alive. Alive is what art is. if it's not alive, it's dead, and it's not art.

JOHN LAUTNER ”

Hi!

I AM AMIT KUMAR ,AN ARCHITECTURE STUDENT

MALE AGE 21 AUGUST 24,1997 INDIAN

I AM A DESIGN ADVENTURER ,FORGED WITH PASSION AND ENTHUSIASM TO WORK IN DOMAIN OF ARCHITECTURE.ELEGANCE, SIMPLICITY AND FUNCTIONALITY ARE THE KEYSHOTS FOR ME TO WORK UPON.I ENJOY LIFE AND FELL PRIVILEGED TO WORK WITH PEOPLE EVERYDAY IN RESPECT AND HELPFUL NATURE.I BELONG TO DISTRICT LUDHIANA, PUNJAB.MY GROWTH AND DEVELOPMENT IS EENCOURAGED WITH ETHNICITY FROM NATIVES.

EDUCATION

2013	2015	2020
MATRIC CERTIFICATION	SECONDARY CERTIFICATION	BACHELOR OF ARCH.
ST. JOSEPH'S SCHOOL,LUDHIANA (78.48)	R.S. MODEL SP. SEC. SCHOOL, LUDHIANA (89.38)	LOVELY SCHOOL OF ARCH. & DESIGN,PHAGWARA (77.75 CGPA)

SOFTWARE & PERSONAL SKILL SET



FIELD EXPERIENCE

- HERITAGE LISTING, INTACH
Testing and grading of properties in NADDER, HUBBIS
- PROPERTY MAPPING FOR PMDC
Property mapping for Punjab Real Estate Infrastructure Development Company
- SUMMER INTERNSHIP
Summer Internship with Engineers, Ludhiana, Punjab from June 7,2020 to July 31,2020
- SELF HANDED LIVE PROJECT
Designed a 3BHK apartt of residence in Palm Enclave,Ludhiana,Punjab for Mrs. Anshu Singh

ACHIEVEMENTS & PARTICIPATIONS

2018	2018	2017	2017	2016	2016	2016	2016	2016	2016
Participated in Bridge making competition Youth Vibe,LPU	Participated in Design Extravaganza Youth Vibe,LPU	Awarded 2nd Prize in Installation competition SPECTRA,LPU	Awarded 2nd Prize in Laurie Baker Workshop LPU	Participated in Mind Maze competition Youth Vibe LPU	Participated in Best out of Waste competition LPU	Awarded 1st In ZNDC 20-NASA,DELHI			

WORKSHOPS AND SEMINARS

2018	2018	2017	2017	2016	2016	2016	2016	2016
Attended Niche conference.	Attended guest lecture by Ar. Ra] Rewal.	Participated in Laurie Baker Workshop.	Attended Niche conference.	Attended seminar by artist Wajid Khan on call art.	VISITED 3D Printing workshop.	Attended Seminar workshop on Sensitization towards Green Buildings,World Green Building Week		

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LANGUAGES I KNOW:

ENGLISH HINDI PUNJABI

INTERESTS & HOBBIES:

- SKETCHING
- LISTENING MUSIC
- WRITTING
- PHOTOGRAPHY
- READING
- 3D VISUALISATION

SKILL SET:



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1

ZONASA CLUB HOUSE

COMPETITION 2016

“FREEDOM IS A STATE OF MIND, IT IS A BEGINNING OF ANYTHING YOU WANT.

A FAMILY RESIDING IN MUMBAI, WITH A TOTAL MEMBERS OF THREE, INCLUDING AN ARCHITECT FATHER, A HOME-MAKER MOTHER, AND THEIR 12-YEAR-OLD PRODIGY CHILD, TO TAKE A BREAK FROM THEIR ROUTINE LIVES, THE FAMILY DECIDES TO TAKE A FAMILY TRIP, WHICH INTRIGUES THE CHILD TO ASK HIS DAD...

“WHY SHOULD THE COMFORT OF STAYING IN THEIR OWN HOME BE COMPROMISED BY STAYING IN A HOTEL. WHY CAN'T THE HOME BE PORTABLE ENOUGH SO THAT IT CAN BE TAKEN ANYWHERE?

THE QUESTION SOUNDED VERY INTERESTING TO THE FATHER AND HE STARTED THINKING ABOUT IT.

A FEW DAYS LATER NEWS BROADCASTED ABOUT THE FREQUENT OCCURRENCE OF NATURAL DISASTERS LIKE EARTHQUAKES AND TSUNAMIS AND ITS EFFECTS OF PROPERTY DAMAGES AND DEATHS, WHICH LEAD TO ANOTHER QUESTION IN THE CHILD'S MIND ABOUT FLYING AWAY FROM ALL OF THESE PROBLEMS. THIS INTRIGUED THE CHILD'S FATHER AND MADE HIM TO QUERY HIMSELF THAT: WHAT IF BUILDINGS ARE PROVIDED WITH FREEDOM TO FLY?

FORM EVOLUTION

THE FORM IS INSPIRED FROM AQUATIC ANIMALS & BIRDS IN ORDER TO ACHIEVE AERODYNAMICS IN THE FORM.

FISH
HYDRODYNAMIC SHAPE HELPS THEM TO SWIM EFFICIENTLY.

WHALE
SMALL FINS PROVIDING FROM WHALE, MAKES IT VERY SPECIFIC AND STEADY TO SWIM.

BIRD
ITS WING SHAPE HELPS IN OPPOSING THE AERODYNAMIC FORCES AND MAKES IT FLY HIGH.

UBIQUITOUS



EVERY ONE DREAM TO GO FREE ANYWHERE

WHY ARE WE RESTRICTING OUR BUILDINGS TO ONE PLACE?

LAND IS SCARCE WHERE AS WATER IS IN ABUNDANCE

WHY BUILDINGS NEED TO BE STABLE?

DREAM OF A DESIGNING A BUILDING WHICH AS FLOW OF WATER

DREAM OF FLYING LIKE A BIRD

WHY CAN'T BUILDINGS HAVE FREEDOM LIKE BIRD?

THE PROJECTS FULFILL THE DREAM OF PEOPLE WHO CAN'T AFFORD TO BUY THEIR OWN YACHT BUT CAN AFFORD THE MEMBER SHIP OF THE CLUBHOUSE.

THE MEMBERS IN CLUBHOUSE CAN ENJOY GOING TO A PRIVATE ISLAND WHICH IS LITTLE FAR AWAY FROM MUMBAI CITY.

WIND - SUMMER - SW TO NE DIRECTION WINTER - NE TO SW
TEMPERATURE - MAX. 38.4°C
MIN. 16°C
PRECIPITATION - 1378.3MM
HUMIDITY - 50% TO 95%
ATMOSPHERIC - 0.99 ATM
PRESSURE

LOCATION: 18° 36' 25.11" N, 72° 51' 13.4" E
MUMBAI NEW DOCK (STARTING POINT)

18° 42' 24.11" N, 72° 51' 31.8" E
UNDER SEA PORT (DESTINATION)

ZNDC TROPHY 2016



GROUND FLOOR AREA - 485 SQ.M

- 1 ART GALLERY - 109
- 2 CONFERENCE ROOM - 33
- 3 LIBRARY - 35
- 4 SITTING - 40
- 5 ENGINE ROOM - 18
- 6 HVAC ROOM - 10
- 7 BATTERY - 7
- 8 WASHROOM - 3
- 9 DORMITORY - 13
- 10 WASHROOM - 4
- 11 KITCHEN - 2 M
- 12 STAIRCASE WIDTH - 2 M
- 13 RAMP STAIRCASE AND CIRCULATION 202
- 14 PROPELLOR - 34 M DIA

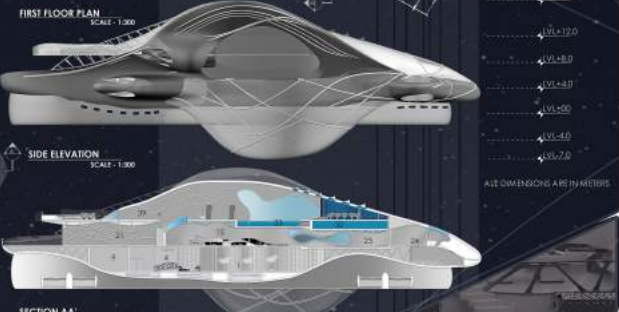
SECOND FLOOR AREA - 860 SQ.M

- 27 RECEPTION - 12
- 28 MASSAGE ROOM - 13
- 29 SAUNA - 11
- 30 FILTRATION ROOM - 4
- 31 WASHROOM - 3
- 32 POOL - 96
- 33 KIDS ROOM - 63
- 34 BAR - 45
- 35 MALE WASHROOM - 15
- 36 FEMALE WASHROOM - 17
- 37 GYM - 107
- 38 INDOOR GAMES - 84
- 39 GOLF - 116
- 40 CIRCULATION AND SITTING - 250



FIRST FLOOR AREA - 826 SQ.M

- 11 RESTAURANT - 285
- 1A KITCHEN - 60
- 17 WASHROOM - 5
- 18 KIDS PLAY AREA - 65
- 19 MALE WASHROOM - 11
- 20 FEMALE WASHROOM - 18
- 21 MULTI PURPOSE HALL - 100
- 22 OPEN DECK - 158
- 23 SITTING - 195
- 24 SLEEPING - 38
- 25 BEDROOM - 30
- 26 RAMP AREA - 100



UBIQUITOUS

ZNDC TROPHY 2016



FEATURES:

- IT IS UNIVERSALLY ACCOMMODATE FOR ANY ACCOMMODATE ANYWHERE IN LAND, WATER AND AIR
- IT IS SUSTAINABLE IN ALL THE WAYS POSSIBLE FROM FUEL TO FORM, FOOD TO WATER AND FUEL TO POWER
- THE AERODYNAMIC FORM MAKES STRUCTURE SUSTAINABLE BY IMPROVING THE PERFORMANCE OF VESSEL AND FUEL EFFICIENCY.
- USING WINDS NEGATIVE DRAG FORCES AND TURNING THEM INTO POSITIVE ENERGY PULL TO GENERATE UPLIFT AND FORWARD PROPULSION.

- THE CLOSED-LOOP WATER SYSTEM WILL AIM TO ENSURE THAT WASTE WATER ON BOARD IS RECYCLE AND REUSED.

- NO WASTE DISCHARGE, NO TOXIC EMISSION, LESS CARBON EMISSION.

- THE STRUCTURE HAS EQUIPPED WITH A SYSTEM WHERE THE HUMAN WASTE CAN BE FILTERED AND PRODUCE FLY ASH, UREA, SNE GAS AND WATER.

- IT USES BIOTECHNICAL FUEL AS A FORM OF RENEWABLE ENERGY WHICH IS PRODUCED FROM AGRICULTURAL WASTES SUCH AS SUGAR CANE AND THE MOST COMMON CROP IS MISCANTHUS, SUGARCANE.

- USES ALL THE AVAILABLE RENEWABLE RESOURCES TO PRODUCE THE ENERGY, IT PRODUCES ENERGY FROM SOLAR, WIND, TIDAL ENERGY AND BIO WASTE.

IF U CAN DREAM IT, U CAN DO IT.



4 PROPELLERS BY DIA OF 45 KW (60 HORSE POWER) EACH BALANCE THE MAXIMUM WEIGHT OF THE STRUCTURE

4 THRUSTERS (2 ON EACH SIDE) HELPS IN GUIDING THE DIRECTION OF THE STRUCTURE

12MM CARBON FIBER REINFORCED POLYMER

1500 SQ. MTR SOLAR PANELS PRODUCE APPROX. 95 KW/HR

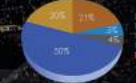
LEKIAN POLYCARBONATE PLEXIGLASS 12MM



PROPOSALS

4 PROPELLERS OF 5M DIA AND 10 KW (13.35 HORSE POWER) EACH HELPS IN ORBIT AS WELL AS MOVEMENT OF STRUCTURE IN AIR.

ENERGY CONSERVATION



CARBON FIBER

SOLAR PANELS

THRUSTER

PROPELLER

UBIQUITOUS

ZNDC TROPHY 2016



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2

U R B A N
D E S I G N

NAKODAR, JALANDHAR

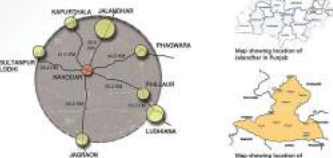
ACADEMIC 2019



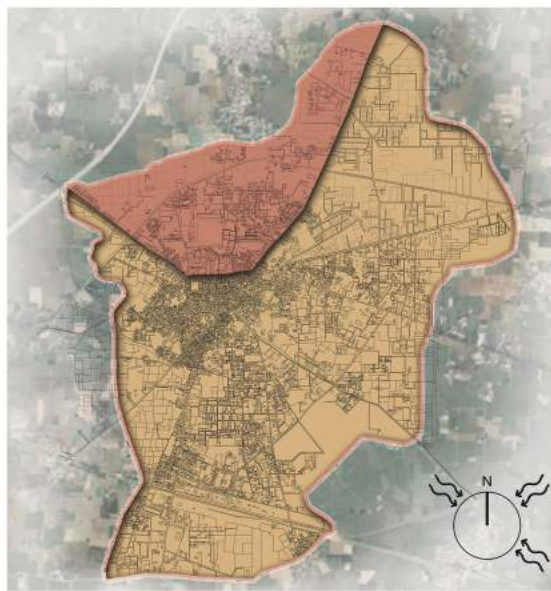
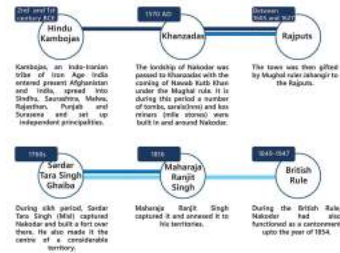
INTRODUCTION

Situated in between of Satluj and Beas River, Nakodar is a town and a municipal council in Jalandhar, Punjab. Having an urban population of 36,905 (Census 2011), it is a town of both historical and religious importance. The town is famous for multiple Sufi shrines visited by thousands of visitors on a daily basis.

It is also famous for its farm produce, movie projects, pharmaceutical machinery and rugs. It also houses two historical tombs from Mughal period, listed as protected monuments by the ASI.



HISTORICAL TIMELINE



BACKGROUND

Nakodar derives its name from the Persian words 'Nak' (to give) which means Gift of Goodness or Virtue. Earlier a dense forest area with a natural pond, it lies on the earlier Shah Shah Saraj Mang completed in the 16th century which was an important trade route through which multiple investments were led to India.



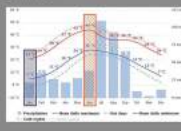
CHRONOLOGY



CITY PROFILE



CLIMATE



MUNICIPAL COUNCIL WARD DETAILS



	Population	No. of Households	Sex Ratio	Literacy Rate	No. of Children
Ward-002	3,487	743	896	63.98%	403
Ward-001	3,039	616	846	74.53%	294
Total	6,526	1,359	871	69.76%	697



POND

DERA BABA MURAD SHAH

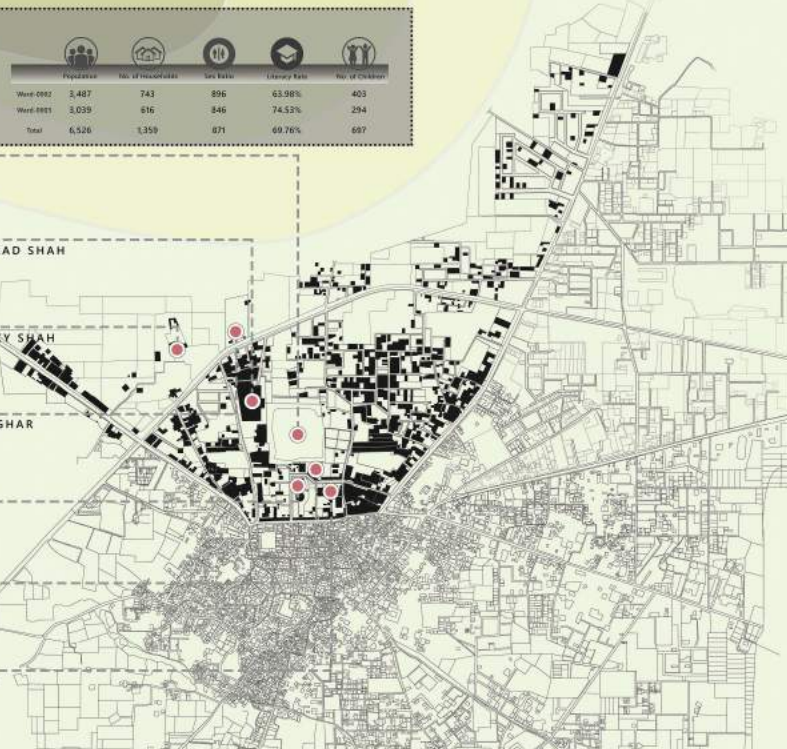
DERA BABA VICKY SHAH

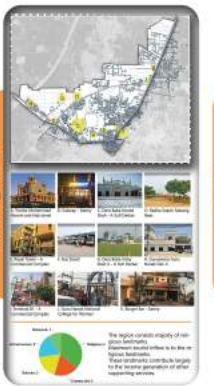
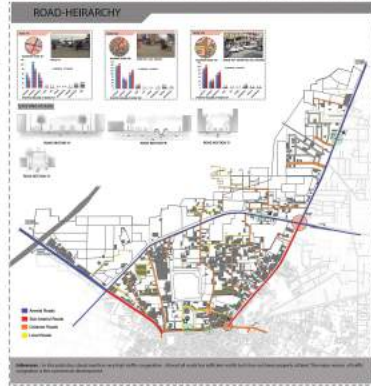
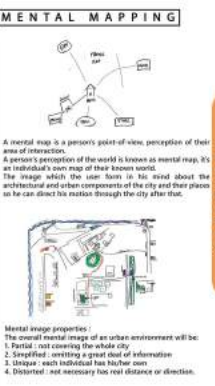
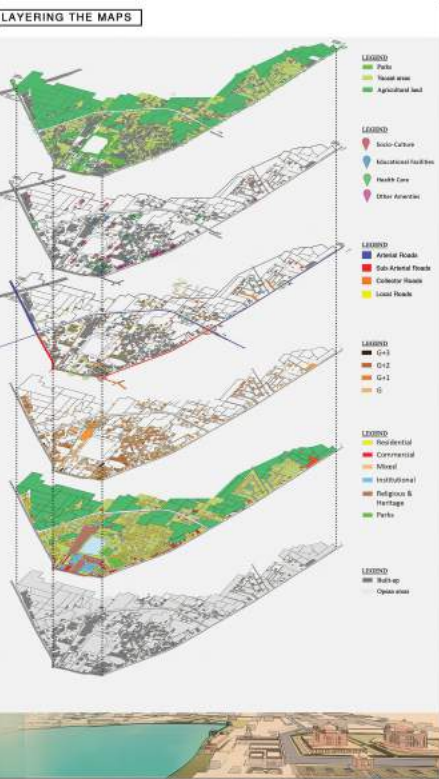
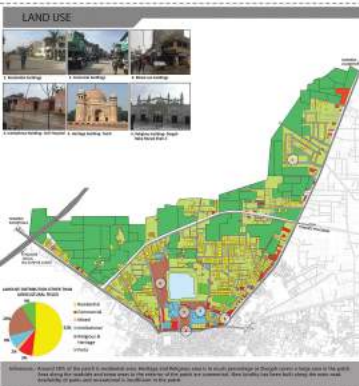
BEAS SATSANG GHAR

TOMBS

SHIV MANDIR

CIVIL HOSPITAL







CONTEXT ANALYSIS

DERA BABA MURAD SHAH

Dera Baba Murad Shah is located in Nakodar(District Jalandhar). The city is almost 24 km from Jalandhar and about 114 from Amritsar. This place have a great specialty and the door of this place is open to all who come here carrying within their heart a deep wish, waiting be fulfilled.

This is the prime location of attraction, which is considered to be sacred.The Dargah has the combination of Mughal architecture.

Among the Jalandhar District one of the most visited place. Nakodar town has 20 mosques, 16 temples and 8 gurudwaras the reason behind is the rich historical highly cultural as well as historical value.

Dera Baba Lal Badshah Ji and Dera Baba Murad Shah which were built in 1947 and 1960 respectively are two popular religious landmarks of the town.These places receive a high number of visitors throughout the year as well as host multiple fairs.

ISSUES IDENTIFICATION



Lack of identity of Area



Dungyards along pond



Dungyard along Hasad Hall

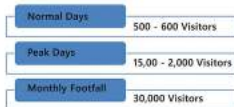


Inadequate Internal Market



Lack of Shaded Open areas

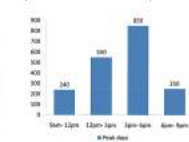
SURVEY ANALYSIS
Basis on Community Survey



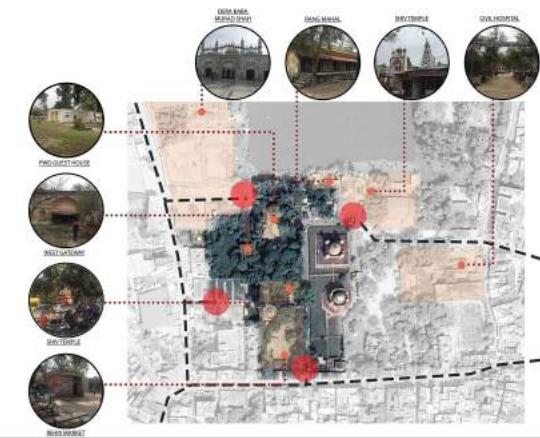
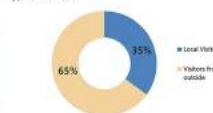
Weekly Flow of Visitors



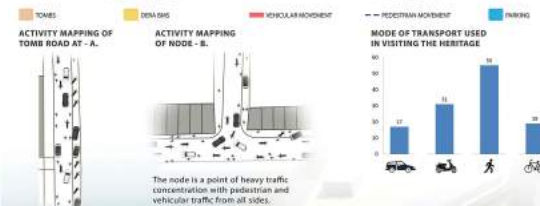
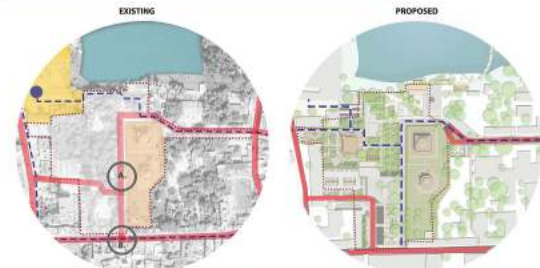
Daily Flow of Visitors on Peak Days



Types of Visitors



PEDESTRIANISATION OF THE COMPLEX



INCREASING SPACES FOR PUBLIC INTERACTION AND RECREATION



BUILDING CONNECTION BETWEEN DERA AND THE TOMB COMPLEX



■ TOMB ■ DERA BLD ■ ABANDONED LAND
--- EXISTING MONUMENT --- PROPOSED ACCESS ROUTES

ISSUES



20% of the total visitors to the Dargah visit tombs and the surrounding area.

CONCEPT

Nakoda's history signifies the **marshid** (teacher) - **murid** (student) relationship. Nakoda is home to two 17th century architectural gems, the beautifully maintained Mughal-era tombs of court musician **Muhammad Momin**, a **tanpura maestro**, and his student **Haji Jamal**. Also, **Baba Murad Shah Ji** was inspired and guided into Sufism by his spiritual guide, **Shir-e-Shah Ji**.

PLAN

The vacant area around West Gate is developed as an open interpretation area depicting importance of the teacher-student relationship in Sufism. The two areas are of different sizes are connected through a single passage symbolising the flow of knowledge between the two.

The stone pillars are used to depict the events from the history of Shir-e-Shah Ji as well as Baba Murad Shah Ji.

ELEVATION

West Gate is proposed to be adaptively reused as an interpretation center highlighting Nakoda's history in terms of:
 Its evolution
 Development of **Hastinwala Bagh**
 Life history and evolution of Sufism in Nakoda.



1 MARKET PLAZA AT ENTRANCE FROM DARGAH



2 VIEW SHOWING WEST GATE AND INTERPRETATION AREA



3 INTERPRETATION AREA



4 VIEW FROM PARKING



5 WEST GATE



6 SITTING SPACES



7 VIEW OF TOMB FROM THE SITTINGS

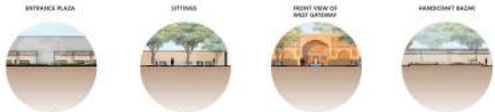


AERIAL VIEW OF THE COMPLEX

INTERPRETATION AREA



SECTION A-A'



SECTION B-B'

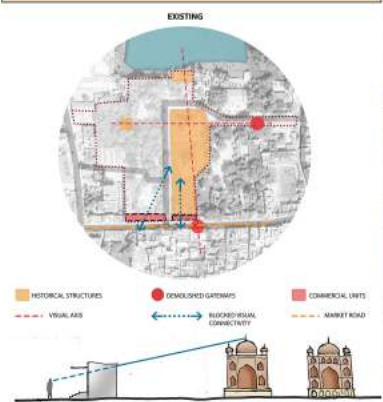


LEGEND

1. EXISTING BUILDINGS	2. NEW BUILDINGS/OPEN	3. NEW TELEPHONE BOOTH	4. PROPOSED BY LOCAL COMMUNITY
5. EXISTING ROAD	6. NEW ROAD	7. EXISTING PARK	8. NEW PARK
9. EXISTING PLAZA	10. NEW PLAZA	11. EXISTING MARKET ROAD	12. NEW MARKET ROAD
13. EXISTING SHOP	14. NEW SHOP	15. EXISTING SITS	16. NEW SITS
17. EXISTING TREE	18. NEW TREE	19. EXISTING LIGHT	20. NEW LIGHT

SITE PLAN SHOWING AREA OF PROPOSAL-1

STRENGTHENING THE VISUAL AXIS



ISSUES:
The existing government rented shops block the visual connectivity of the tombs from the main market stretch. Also, the area behind the shops is a designated space for informal vendors and hawkers. The blocked vision also affects their income as less people access that space.

PROPOSED SOLUTION:
The commercial units (12) are relocated in the same area but with a different orientation to create an open plaza which acts as a public node. It enhances the visual connection between the tombs and the market stretch. Also, the space for the hawkers is increased and is now open, pedestrianised and is easily accessible both physically and visually. The use of trees for shade and other sitting furniture further enhances the overall environment of the plaza.

EXISTING	12	12
PROPOSED	12	20



COMMERCIAL UNITS RELOCATED TO CREATE PUBLIC PLAZA

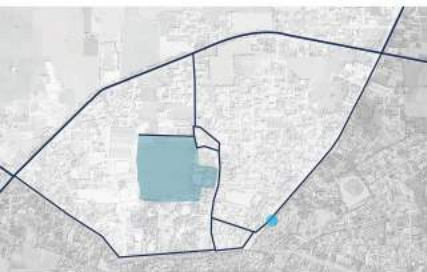
SHOPPING SPACES AS WELL AS INFORMAL VENDORS

ENHANCED VISUAL CONNECTION WITH THE TOMBS

EXISTING ENTRANCE GATEWAY

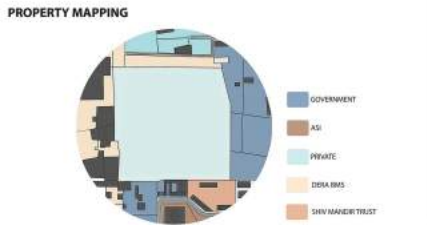
8.5M WIDE MARKET ROAD > 8.5 M

NATURALLY SHADED SITTING SPACES



AREA OF THE POND: 34,800 sq.m.
 TOTAL AREA OF THE PROPOSED DEVELOPMENT: 64,000 sq.m.
 LENGTH OF THE PEDESTRIAN PATHWAY AROUND THE POND: 300m.

INTRODUCTION
 Being the oldest part of the town, the pond has always played an important role in framing Nakodar's history and culture. Due to its moderate micro-climate, it served as a camping site during the Mughal period. It turned into the focal point of development of Hazironwala Bagh around it. Its calm and serene condition filled in as the establishment of Sufism in Nakodar.



1. RANG MAHAL

SIGNIFICANCE:
 Developed in _____ Served as a place for hosting music and dance events in the Mughal era. It was being used as Nakodar's Court ten years ago.

PROPOSED DEVELOPMENT:
 Rang Mahal acts as a strong connecting point between the heritage complex and the pedestrianised pond area. It is developed as a gateway between the two areas.

PRESENT STATUS:
 Abandoned as the court shifted to another place. The surrounding area consists of small commercial units and few informal units. The building lies in dilapidated state and needs restoration and preservation.



4. PARK AND POND CONNECTIVITY

SIGNIFICANCE:
 Well maintained park being regularly used by the local residents. The only neighborhood park in the area serving population of 6,526.

PROPOSED DEVELOPMENT:
 The neighborhood park is an important public gathering space which can serve as pedestrian access to the pond's pedestrianised area.

PRESENT STATUS:
 The boundary wall along the pond's edge blocks any views of the pond.



2. SHIV MANDIR

SIGNIFICANCE:
 Developed in _____ A famous religious place with visitors from Banaras, Vrindavan, Mathura, etc. A number of yearly fairs and festivals are hosted with gathering of more than 1000 people. The large gathering space is also used for multiple community functions such as Murti Puja or other ceremonies.

PROPOSED DEVELOPMENT:
 Shiv Mandir is an important community space which is connected through the proposed pedestrian pathway. A direct access point is developed through the temple which connects it to the other spaces along the path.



5. LOCAL COMMUNITY

SIGNIFICANCE:
 Low income community of 157 residents living in government provided housing. Voluntarily maintain the dargah designated to one of the successors of Baba Murad Shah. Weekly and annual functions are hosted with gathering upto 75-100 and 200-400 people respectively.

PROPOSED DEVELOPMENT:
 Connecting the religious plaza on the pedestrian path introduces a direct public access through the plaza increasing the opportunities for the local residents to generate income.

PRESENT STATUS:
 Decrease in the number of visitors due to barricading of the pond area. Poor economic conditions of the local



3. SWAMPS AND THE NATURAL HABITAT

SIGNIFICANCE:
 A part of temple's area is provided for raising swans and rabbits. The adjacent swamp area is frequently visited by the same.

PROPOSED DEVELOPMENT:
 The area is linked with the pedestrian providing a point of attraction.

PRESENT STATUS:
 The swamp is not well maintained due to poor access and visual connectivity. The area is polluted with garbage thus turning into a dumpyard.



6. REDEVELOPING DUMPYARD

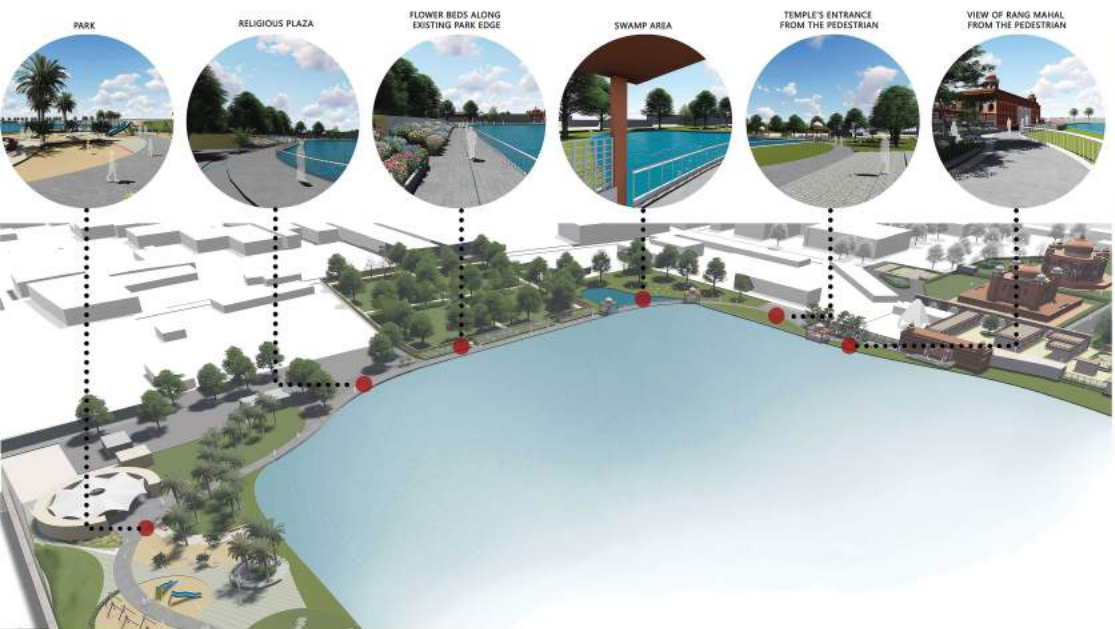
DEVELOPMENT OF VACANT LAND INTO PARK

330 sqm vacant plot under ownership of Dera Baba Murad Shah Trust. Currently abandoned and being used as dumpyard. Easy access and connectivity with the surrounding areas through 18 ft wide vehicular road.

PRESENT STATUS:
 Lack of recreational areas and parks in the area. Potential location along the pond's edge.



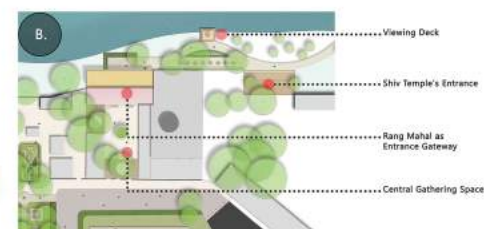
SITE PLAN SHOWING AREA OF PROPOSAL-2



SCALE-1:200



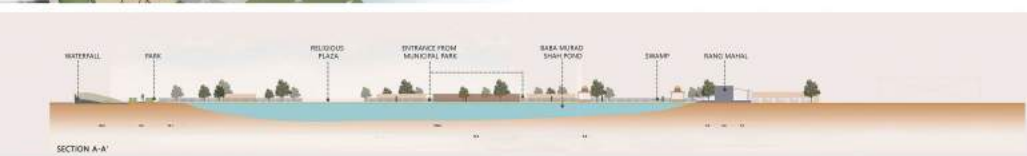
SECTION OF OAT (1:100)



SCALE-1:500



SCALE-1:500



SECTION A-A'



SECTION B-B'



SECTION C-C'



CANCER HOSPITAL AMRITSAR, PUNJAB

ACADEMIC 2018

SITE AREA - 5.5acres.



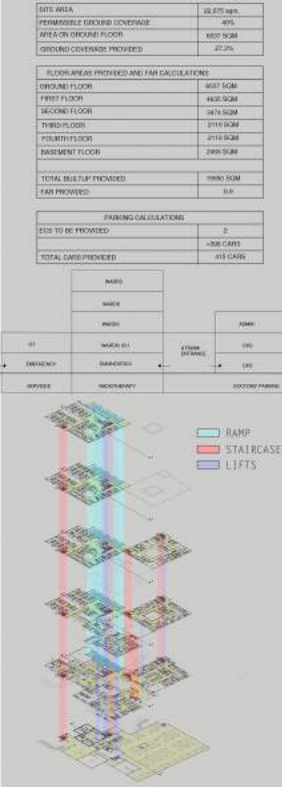
A HOSPITAL IS AN INTENSELY PEOPLE-CENTERED BUILDING TYPE IN WHICH EFFICIENT CIRCULATION AND THE FLEXIBILITY ARE CRITICAL FACTORS IN HOW WELL IT SUPPORTS SOME OPERATIONS.



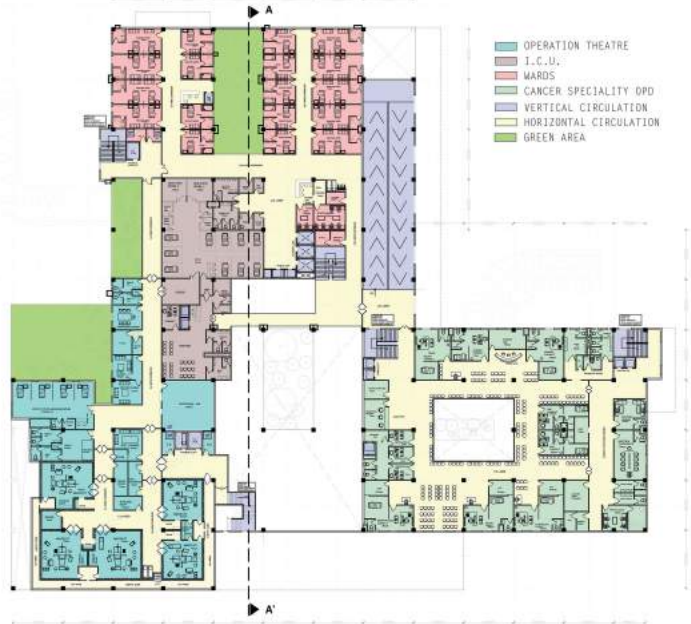
AS A PLACE DEDICATED TO HEALTH, A HOSPITAL BUILDING MUST FIRST BE A HEALING, LIFE-AFFIRMING SPACE THAT PLAYS AN ACTIVE ROLE IN HELPING PATIENTS AND THEIR FAMILIES RETURN TO HEALTHY LIFE.

A 250 BEDDED CANCER HOSPITAL, WHICH IS TO BE BUILT IN AMRITSAR AS AN EXTENSION OF GURU NANAK DEV HOSPITAL. HEALTHCARE SERVICES LIKE IPD, OPD, OTs, EMERGENCY DEPTT., CSSD, DIAGNOSTICS AND ICU ARE INCLUDED.





- GROUND FLOOR PLAN**
- | | | | | | | |
|---------------------|---------------------------|------------------------|--------------------------|-----------------|--------------------------|----------------------|
| 1. ENTRANCE | 8. X-RAY ROOM | 14. RECEPTION | 23. PAEDIATRICS CONSULT. | 32. MRI | 40. PATHOLOGY LABS | 49. CANTEN |
| 2. TRIAGE ROOM | 9. PLASTER/ FRACTURE ROOM | 15. ADMITTING OFFICE | 24. PSYCHIATRIST | 33. CT-SCAN | 41. MAMMOGRAPHY | 50. VEG. KITCHEN |
| 3. ALCOVE AREA | 10. EMERGENCY WARDS | 16. PHARMACY | 25. DOC. LOUNGE | 34. ENDOSCOPY | 42. SPECIMEN COLLECTN. | 51. NON-VEG. KITCHEN |
| 4. DOCTOR'S ROOM | 11. NURSE STATION | 17. DENTIST CONSULT. | 26. DOC. CONFERENCE | 35. X-RAY | 43. STAFF LOUNGE | 52. STAFF DINNING |
| 5. EXAMINATION ROOM | 12. TOILETS | 18. CARDIO CONSULT. | 27. LOCKER'S ROOM | 36. RECEPTION | 44. NUCLEAR MEDICINE | 53. DIETICIAN |
| 6. MINOR O.T. | 13. A.H.U. | 19. GERIATRIC CONSULT. | 28. SPECIMEN COLLECTION | 37. ULTRASOUND | 45. FILM DRYING | 54. STORAGE |
| 7. E.C.G | | 20. ORTHO CONSULT. | 29. SWITCH ROOM | 38. RADIOLOGIST | 46. FILM STORAGE | |
| | | 21. ENT CONSULT. | 30. A.H.U. | 39. PET-CT SCAN | 47. SWITCH ROOM & A.H.U. | |
| | | 22. EYE CONSULT. | 31. TOILETS | | 48. STAFF LOUNGE | |



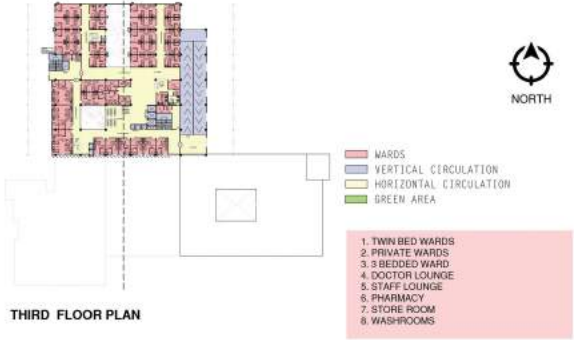
FIRST FLOOR PLAN

- | | | | | | |
|-------------------------|-------------------------|-----------------------|--------------------------|--------------------------|-----------------------|
| 1. MAJOR O.T. | 9. POST ANESTHESIA ROOM | 14. I.C.U. WARDS | 22. TWIN BED WARDS | 27. DERMATOLOGY | 34. NEURO CONSULT. |
| 2. MINOR O.T. | 10. DOC. CONFERENCE | 15. WAITING | 23. PRIVATE WARDS | 28. RADIOGRAPHY | 35. GYNAEC CONSULT. |
| 3. STERILISED EQUIPMENT | 11. NURSE LOUNGE | 16. SCRUBS | 24. DOCTOR LOUNGE | 29. SURGICAL ONC. | 36. GYNAEC LAB |
| 4. PREP ANESTHESIA ROOM | 12. A.H.U. | 17. CHANGING | 25. STAFF LOUNGE | 30. MEDICAL ONC. | 37. DOCTOR'S LOUNGE |
| 5. DRUGS STORE | 13. TOILETS | 18. RECORDS | 26. NURSING STATION | 31. GASTRO CONSULT. | 38. STAFF LOUNGE |
| 6. DOCTOR LOUNGE | | 19. CONSULTATION ROOM | 27. A.H.U. & SWITCH ROOM | 32. PULMONOLOGY CONSULT. | 39. RECORD AREA |
| 7. STORE | | 20. ISOLATION ROOM | | 40. TOILETS | 41. SWITCH ROOM & AHU |
| 8. BLOOD BANK | | 21. TOILETS | | 33. SHC CONSULT. | |



SECOND FLOOR PLAN

- | | | | | |
|-------------------|-------------------------|----------------------|-------------------------------|--------------------------|
| 1. TWIN BED WARDS | 7. NURSING STATION | 9. RECEPTION | 17. DOCTOR'S RECORD | 25. CONFERENCE & LIBRARY |
| 2. PRIVATE WARDS | 8. A.H.U. & SWITCH ROOM | 10. ACCOUNTS OFFICER | 18. CLIENT HANDLING CUBICLES | 26. SWITCH ROOM & AHU |
| 3. DOCTOR LOUNGE | | 11. CASHIER | 19. MEDICAL RECORD PROCESSING | 27. TOILETS |
| 4. STAFF LOUNGE | | 12. WAITING ROOM | 20. MEDICAL RECORD OFFICER | |
| 5. PHARMACY | | 13. MEDICAL SUPPL. | 21. PURCHASE OFFICERS | |
| 6. STORE ROOM | | 14. NURSING OFFICER | 22. STATIONARY GENERAL STORE | |
| | | 15. ADMIN. OFFICER | 23. STAFF LOUNGE | |
| | | 16. MEDICAL RECORD | 24. DOCTOR LOUNGE | |



THIRD FLOOR PLAN

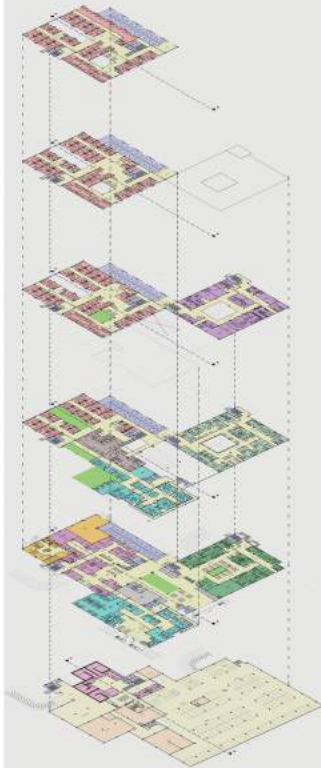
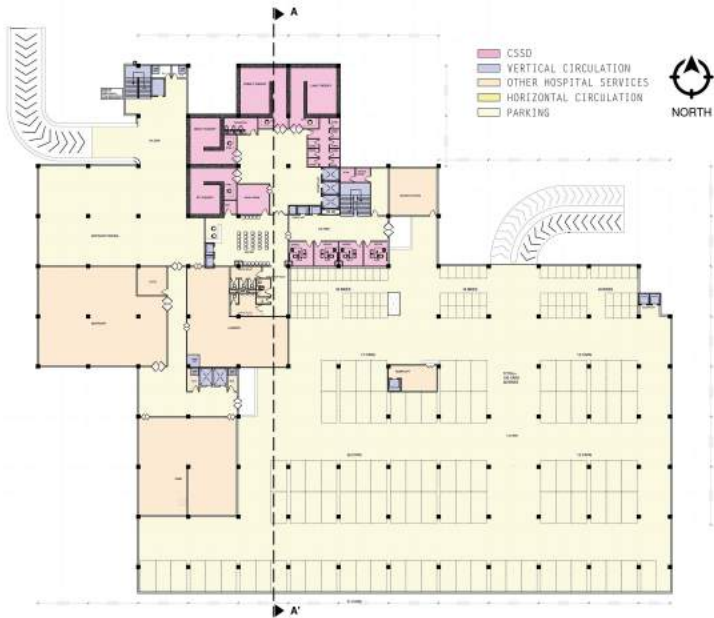
1. TWIN BED WARDS
2. PRIVATE WARDS
3. 3 BEDDED WARD
4. DOCTOR LOUNGE
5. STAFF LOUNGE
6. PHARMACY
7. STORE ROOM
8. WASHROOMS



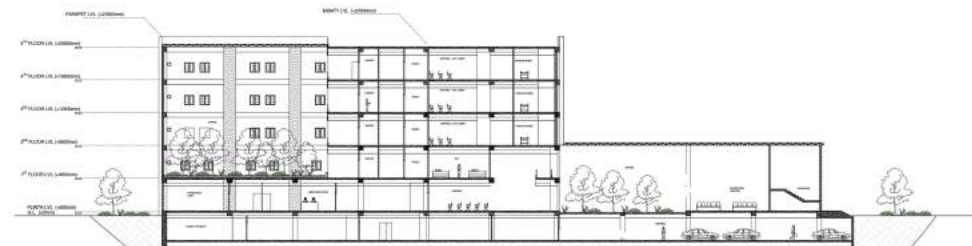
FOURTH FLOOR PLAN

1. CHEMO THERAPY
2. TWIN BED WARDS
3. PRIVATE WARDS
4. 3 BEDDED WARD
5. DOCTOR LOUNGE
6. STAFF LOUNGE
7. PHARMACY
8. STORE ROOM
9. WASHROOMS





FRONT ELEVATION



SECTION A-A'

BASEMENT FLOOR PLAN

- | | | |
|-----------------------------|------------|---------------------------------|
| 1. RECEPTION & WAITING AREA | 8. OFFICES | 10. CSSD |
| 2. MOULD ROOM | 9. TOILETS | 11. MORTUARY |
| 3. RTI THERAPY | | 12. LAUNDRY |
| 4. BRACY THERAPY | | 13. GENERATOR ROOM |
| 5. COBALT THERAPY | | 14. MORTUARY PARKING |
| 6. LINAC THERAPY | | 15. PARKING & CIRCULATION SPACE |
| 7. CHANGING ROOMS | | |

SLUM REDEVELOPMENT PROJECT DHARAVI, MUMBAI

ACADEMIC 2018

SITE AREA = 52 acres



India



Mumbai



Dharavi



Design Ideology

The methodology behind this design is to enhance the overall living conditions of the residents by considering their daily activities. Spaces has been provided related to their work, social gathering, basic amenities etc.

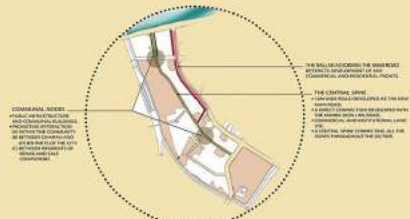


Total area of the sector = 146.2 acres
Total buildable land excluding govt. property = 61.5 acres
F.A.R. = 3
Total builtup area = 3 x 61.5 acres = 184.5 acres
Ground coverage = 40% of 61.5 acres
Density = 75 dwellings per acre
Total number of dwellings = 61.5 x 75 = 4613 dwellings.

Designed a housing for 20, 625 people in 52 acre area by considered 5 residents per dwelling unit. Survey analysis has been done prior such as Landuse, living conditions, amenities, traffic volume etc.



ZONING PLANS



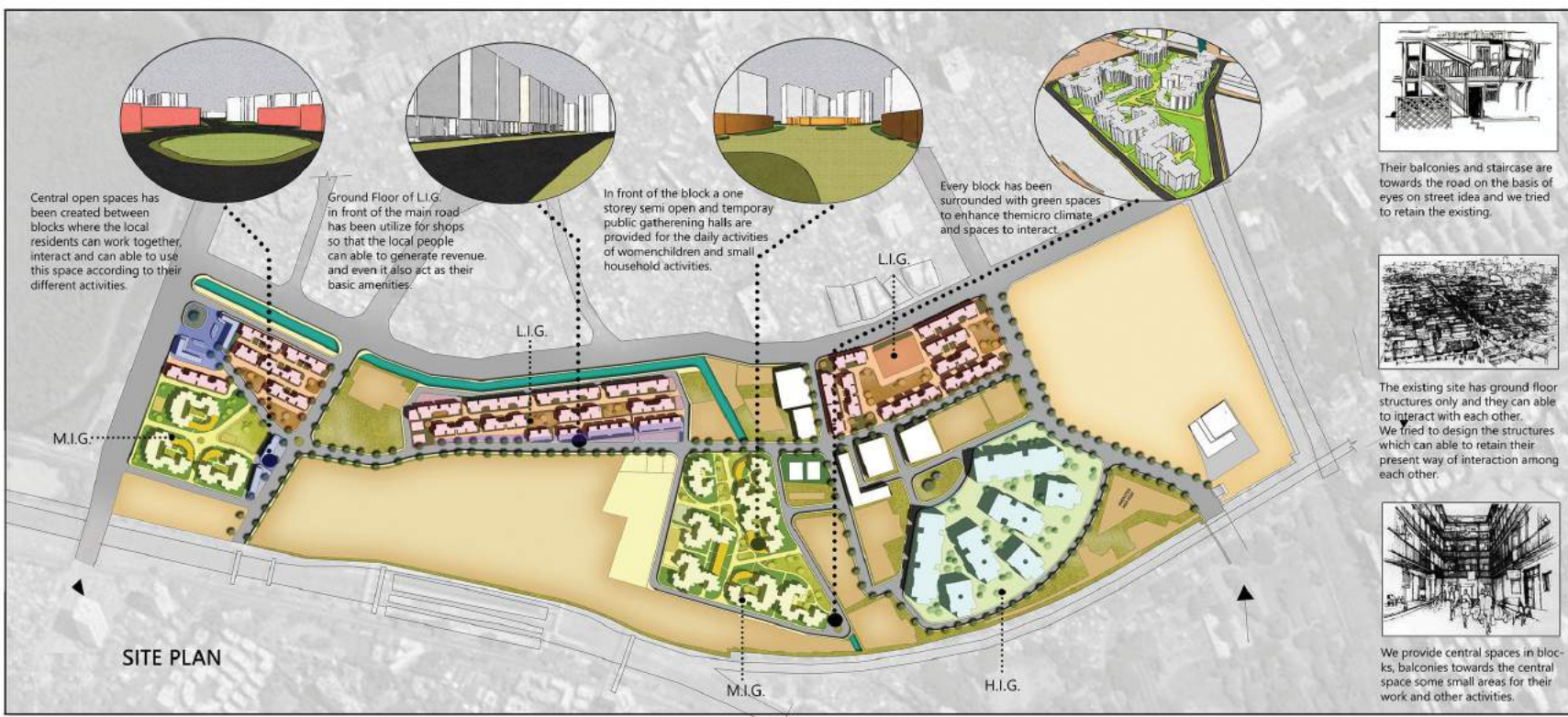
Nodes Proposal



Land Use Proposal



Placement of Types of Housing



Their balconies and staircase are towards the road on the basis of eyes on street idea and we tried to retain the existing.



The existing site has ground floor structures only and they can able to interact with each other. We tried to design the structures which can able to retain their present way of interaction among each other.



We provide central spaces in blocks, balconies towards the central space some small areas for their work and other activities.



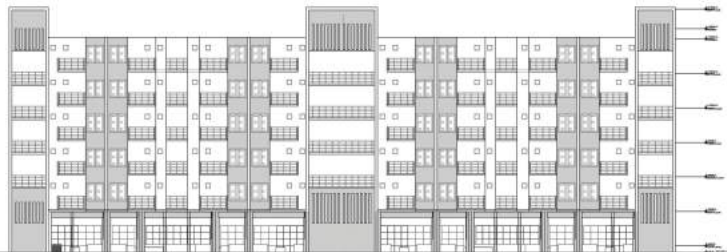
KEY PLAN



GROUND FLOOR PLAN



FIRST FLOOR PLAN



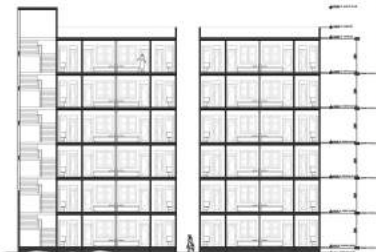
FRONT ELEVATION



GROUND FLOOR PLAN

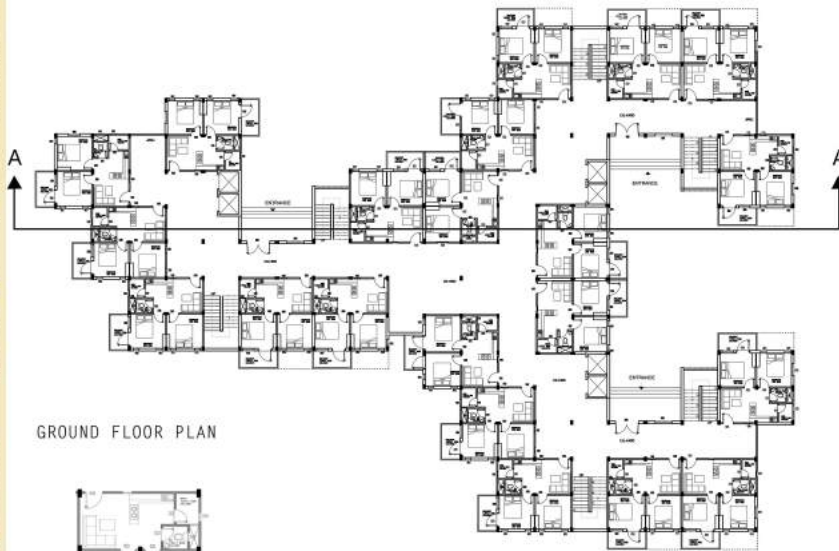


FIRST FLOOR PLAN



SECTION XX'





GROUND FLOOR PLAN



DWELLING UNIT

UNIT SIZE=45.33 SQM



FRONT ELEVATION

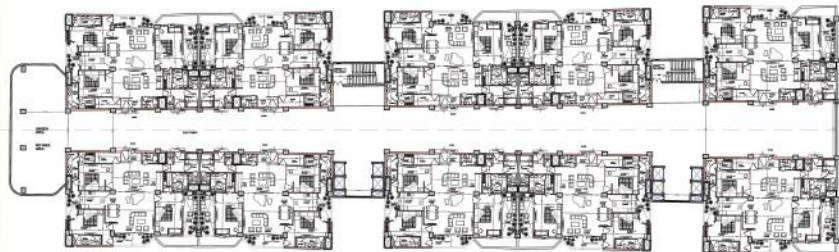


SECTION AA'

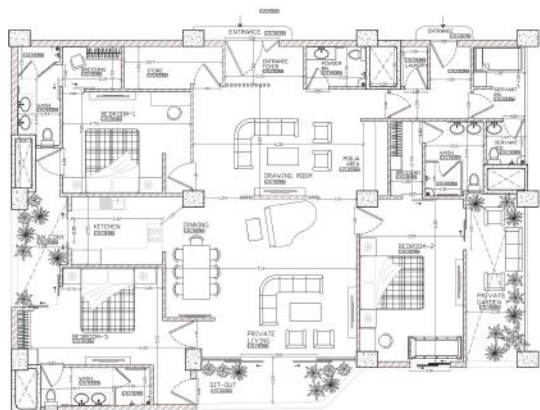




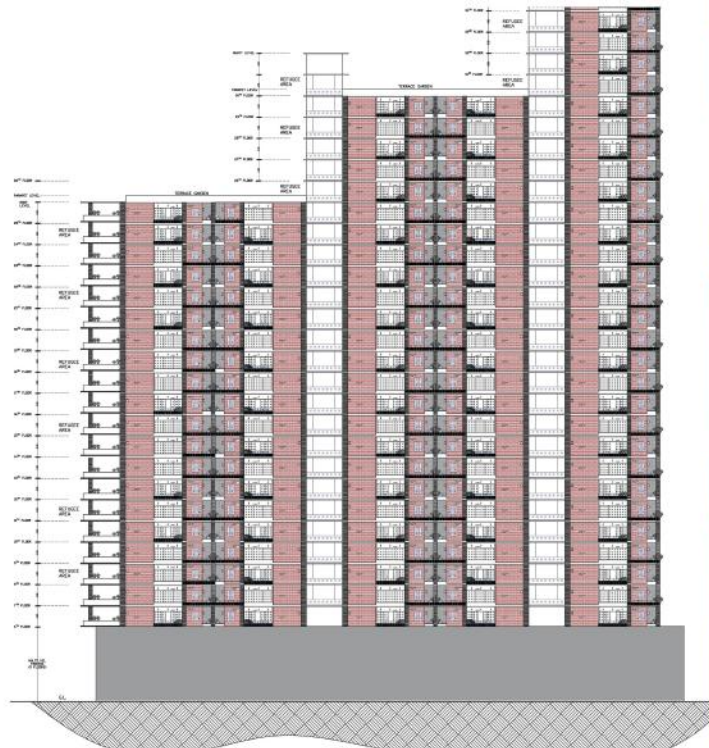
KEY PLAN



TYPICAL FLOOR PLAN (5-20 floors)



DWELLING UNIT PLAN



FRONT ELEVATION



CAMPUS
REDESIGN LPU, PHAGWARA

ACADEMIC 2017



THE PROJECT AIMS TO REDISGN THE SELECTED PORTION OF LOVELY PROFESSIONAL UNIVERSITY, JALANDHAR, PUNJAB.



ITEGERATION OF VARIOUS DISCIPLS WITHIN ONE CAMPUS REDUCES THE INFRASTRUCTURE NEED AND IMPROVES INTERDISCIPLINARY LEARNING FOR BETTER OUTCOME.



UNIVERSITY SITE AREA = 350+ ACRES

PROJECT SITE AREA = 45 ACRES

F.A.R. = 1.5



0KM FROM CHAHERU RAILWAY STATION
3KM FROM MUNICIPAL LIMITS OF JALANDHAR CITY
5KM FROM PHAGWARA
7KM FROM PHAGWARA RAILWAY STATION
7KM FROM JALANDHAR CANTT. RAILWAY STATION
15KM FROM JALANDHAR CITY RAILWAY STATION
45KM FROM LUDHIANA CITY
80KM FROM AMRITSAR CITY
130KM FROM CHANDIGARH
350KM FROM DELHI



LAND USE MAP- EXISTING

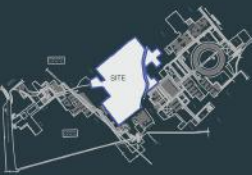


CIRCULATION MAP- EXISTING



IDENTIFIED THREATS





MASTER PLAN

KEY POINTS

- TOTAL GROUND COVERAGE- 24311 sqm.
- TOTAL SITE AREA= 178060 sqm.
- %AGE GROUND COVERAGE= 13.26%
- F.A.R. PROVISION= 1:1
- F.A.R. OF PROPOSED DESIGN= 0.697(0.7)
- PARKING AREA- 10,048 sqm.
- 300+cars + parking for 2 wheelers

LEGEND

- 1.- ELECTRICAL ENGINEERING
- 2.- COMPUTER SCIENCE
- 3.- MECHANICAL
- 4.- ARCHITECTURE
- 5.- CIVIL ENGINEERING
- 6.- COMPUTER APPLICATIONS
- 7.- BIO- SCIENCE
- 8.- CHEMICAL ENGINEERING
- 9.- PHYSICAL SCIENCES
- 10.- POLYTECHNOLOGY
- 11.- LIBRARY + EXHIBITION AREA
- 12.- RESEARCH CENTRE
- 13.- AUDITORIUM
- P- ADMINISTRATION
- BUSINESS MANAGEMENT

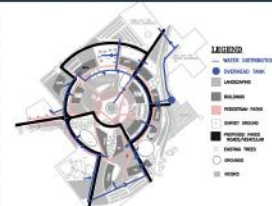
LEGEND

- SURROUNDING BUILDINGS (EXISTING)
- EXISTING ROADS
- PROPOSED ROADS
- LEFT FOR FUTURE EXPANSION
- SEMI-PAVED AREA
- GROUND LEFT FOR PUBLIC FUNCTIONS
- INTERLOCKING TILES
- EXISTING STATUES
- EXISTING NAALA
- EXISTING TREES
- PLANTED TREES

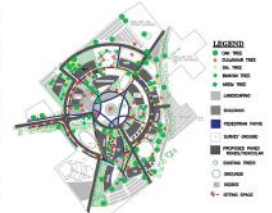


- SELF-EXPLANATORY CIRCULATION
- CENTRAL NODE HAS BEEN CREATED FOR THE STUDENTS AS COMMON SITTING/INTERACTION SPACE.
- THE EXISTING STATUS OF Shri SHANTI DEVI MITTAL AND 'smadhli' AREA HAVE BEEN PRESERVED AS SUCH.
- CAMPUS CAFE IS SITUATED BELOW THE OAT AND ACTING AS MAGNET FOR THE USERS.
- THE ADMIN ZONE HAS BEEN KEPT NEAR UNI-MALL TO FACILITATE THE USERS AND OTHER WORTHY IDENTITIES.
- OPEN INTERACTIVE/SHADED SPACE HAS BEEN GIVEN AROUND EVERY BUILT-UP MASS.

BLOCKS/SCHOOLS	GROUND COVERAGE (sqm.)	TOTAL BUILT-UP AREA	NO. OF FLOORS
ARCHITECTURE	1912	13304	7
ADMINISTRATION	1987	11922	4
ELECTRICAL	1902	8834	7
CIVIL	2352	11780	5
BIO. SCIENCE	1895	9475	5
CHEMICAL	1021	5105	5
PHYSICAL SCIENCE	906	4900	5
BUILDING MANAGEMENT	1100,1385	11530	8
COMPUTER SCIENCE	1921	13447	7
AUDITORIUM	3998	7996	2
A+B+C LIBRARY+EXHIBITION AREA+RESEARCH CENTRE	2202	15400	7
MECHANICAL	1674	11718	7
TOTAL =	24311 SQM.	125493 SQM.	

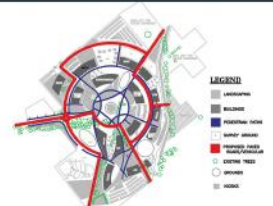


WATER DISTRIBUTION IN THE SITE

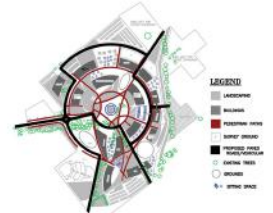


TREES & LANDSCAPING WITH CIRCULATION

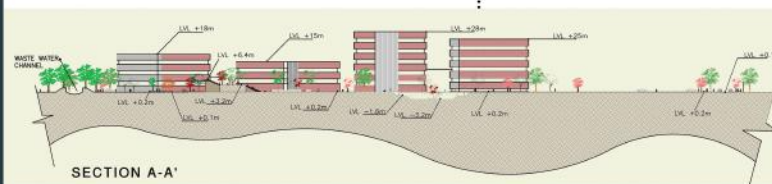
PLANTED SAL AND GULMOTAR TREE PROVIDE SHADE AND AESTHETICS TO THE PATHWAYS. ENCOURAGES USERS TO USE THEM.
 DECIDUOUS OAK TREE PROVIDES SHADE.
 SHYAM TREE PROVIDES SHADE DUE TO LARGE FOLIAGE IN SITTING SPACES.
 MOSTLY NEEM TREES ARE PLANTED NEAR WASTE WATER CHANNEL BECAUSE OF ITS MEDICINAL PROPERTY TO PURIFY THE AIR AROUND IT.



VEHICULAR CIRCULATION & PEDESTRIAN



VEHICULAR & PEDESTRIAN CIRCULATION WITH SITTING AND INTERACTION SPACES



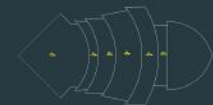
SECTION A-A'



SECTION B-B'



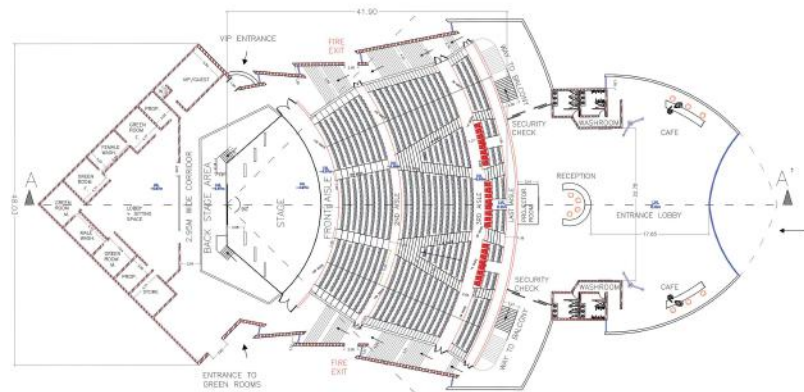
KEY PLAN



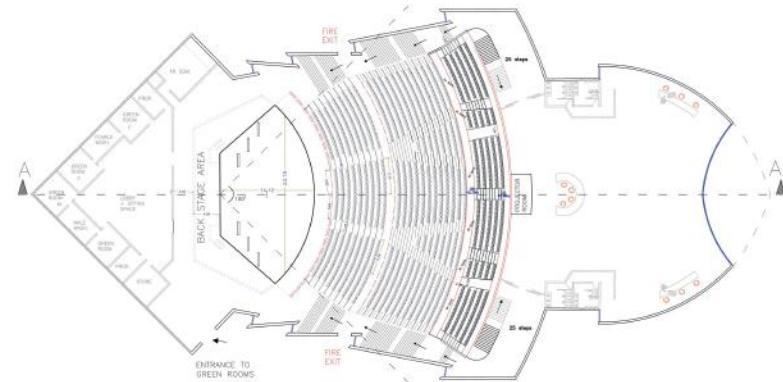
ROOF PLAN

KEY POINTS

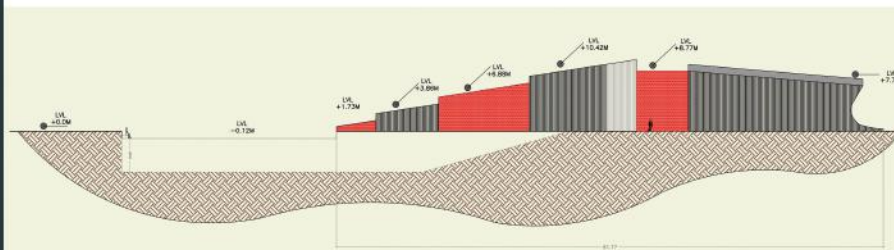
SHAPE— wide fan arrangement
 QUANTITY OF SEATS
 GROUND FLOOR=1106+24WHEELCHAIRS
 BALCONY= 388 SEATS
 TOTAL CAPACITY= 1394 SEATS+
 24 WHEELCHAIRS
 MOST DISTANT SEAT= 42 M FROM CENTER OF THE
 STAGE
 rise = VARIES FROM 0.15M TO 0.2M
 width of seat= 55cm (22")
 row spacing= 0.9M
 tread depth= 0.8M
 space per seat= 0.54 sqm



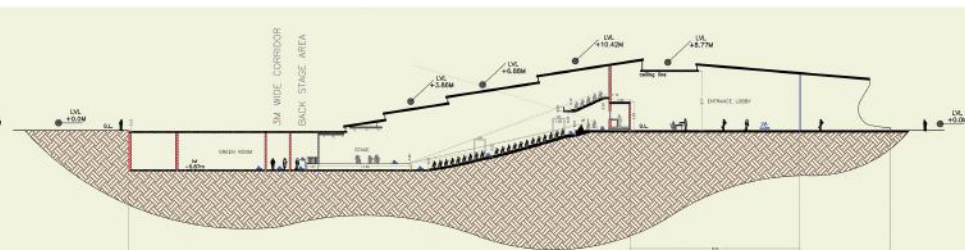
GROUND FLOOR PLAN



FIRST FLOOR PLAN

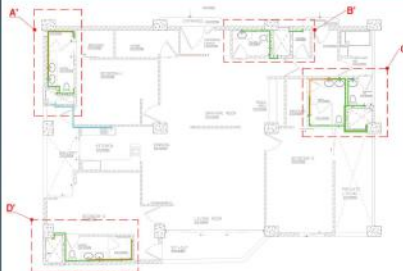


SIDE ELEVATION

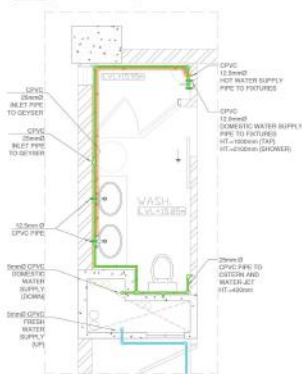


SECTION A-A'

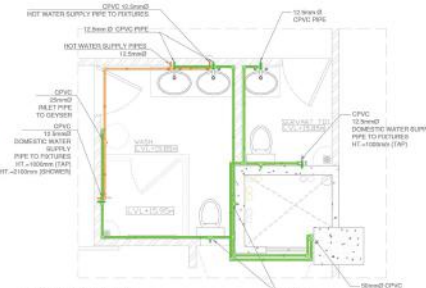
6 WORKING DRAWING



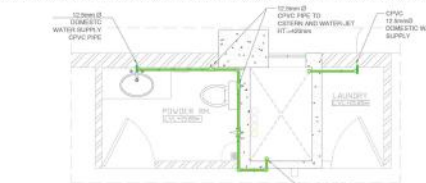
PLAN (WATER SUPPLY PLAN)



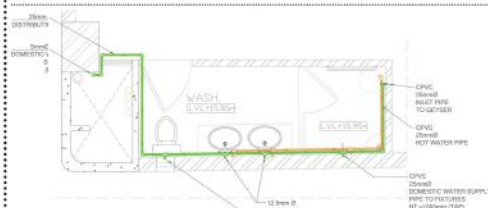
DETAIL PLAN (A') [SUPPLY]



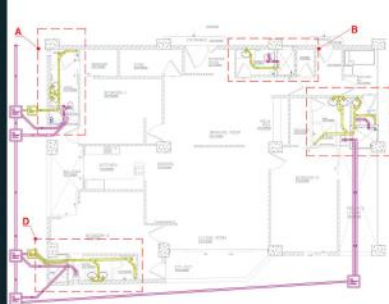
DETAIL PLAN (C') [SUPPLY]



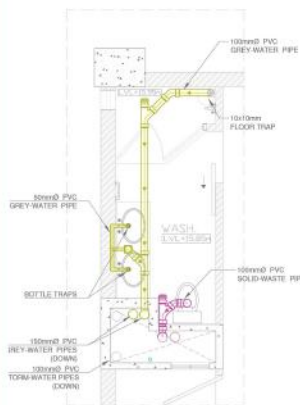
DETAIL PLAN (B') [SUPPLY]



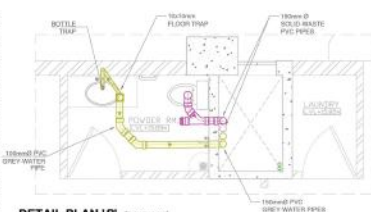
DETAIL PLAN (D') [SUPPLY]



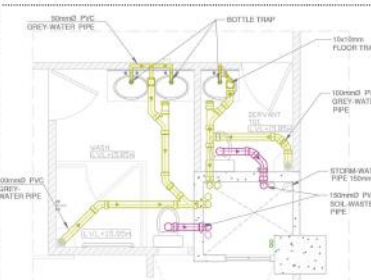
PLAN (DRAINAGE PLAN)



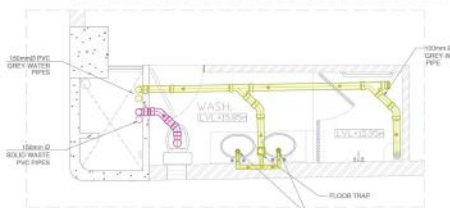
DETAIL PLAN (A'') [DRAINAGE]



DETAIL PLAN (B'') [DRAINAGE]



DETAIL PLAN (C'') [DRAINAGE]



DETAIL PLAN (D'') [DRAINAGE]

WATER REQUIREMENT

CALCULATIONS:
 TOTAL NO. OF FLOORS - 30 (20+5+1)
 NO. OF DWELLING UNITS ON EACH FLOOR - 10,6,2
 TOTAL NO. OF DWELLING UNITS - 260 units
 NO. OF PERSONS IN ONE DWELLING UNIT - 5dwelling unit
 TOTAL POPULATION - 260x5
 =1300
 WATER REQUIREMENT: DAY: CAPITA = 130 L/DAY/CAPITA
 TOTAL WATER REQUIREMENT - 1300x135
 =1,75,500 L/DAY

AS WE KNOW,
 $1m^3 = 1000 litres$
 $1 litre = 0.001m^3$
 $1,75,500 litres = 1,75,500x0.001$
 = 175.5 m³

CALCULATIONS OF WATER TANK
 ASSUMING,
 H = 2m
 AREA OF WATER TANK = 175.5M²
 = 87.75 m²
 AREA OF WATER TANK = L x B
 = 28 x B (assuming L=28)
 $87.75M^2 = 28^2$
 $B^2 = 87.75/28 = 43.875$
 B = 6.52 m
 L = 28 = 13.2 m

TAKING 9x18m = 90m² (AREA)
 VOLUME = 90x2 = 180m³
 THEREFORE, THE TANK OF VOLUME 180M³ CAN CARRY
 DIVIDING THE TANK INTO 2, 4,5x9m EACH = 1,80,00 L

LEGEND

S/NO.	NAME	SIZE	SYMBOL	MATERIAL
1	FRESH WATER SUPPLY	Ø 50A		CPVC PIPE
2	GEYSER WATER SUPPLY	Ø 150A		CPVC PIPE
3	WATER TANK SUPPLY	Ø 75, Ø 100A		CPVC PIPE
4	GREY WATER PIPE	Ø 75, Ø 100A		PVC PIPE
5	SOLID WASTE PIPE	Ø 75A		PVC PIPE
6	RAIN WATER HARVESTING	Ø 75A		PVC PIPE
7	STP TREATED WATER	Ø 75A		PVC PIPE
8	INSPECTION CHAMBER	Ø 75xØ 75		CONCRETE
9	FLOOR TRAP	Ø 50xØ 50		CONCRETE
10	MAN-HOLE	Ø 90xØ 90		CONCRETE
11	CATCH-BASIN	Ø 90xØ 90		CONCRETE
12	CLEAN OUT PLUG			CONCRETE
13	DIRECTION OF FLOW			
14	INCREASE PRESSURE			
15	ECCENTRIC DECREASE			
16	PRESSURE GAUGE			

S/NO.	DESCRIPTION	SYMBOL
1	100mm Ø PVC GREY WATER PIPE (Ø 100mm)	
2	100mm Ø PVC SOLID WASTE PIPE (Ø 75mm)	
3	100mm Ø PVC STORM WATER PIPE (Ø 100mm)	
4	100mm Ø PVC GREY WATER PIPE (Ø 100mm)	
5	100mm Ø PVC SOLID WASTE PIPE (Ø 75mm)	
6	100mm Ø PVC STORM WATER PIPE (Ø 100mm)	



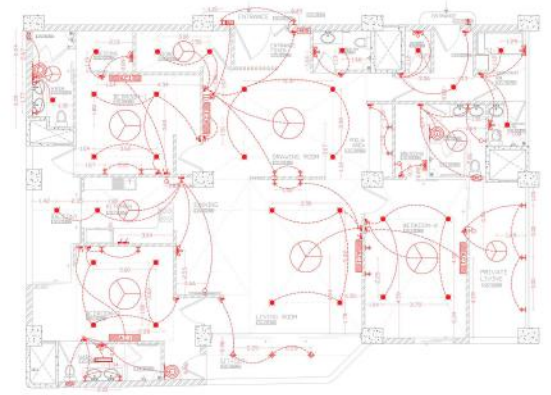
STORM WATER COLLECTION:
 TOTAL AREA OF ROOF A = 11,738 sqft.
 TOTAL AREA OF ROOF B = 11,785 sqft.
 TOTAL AREA OF ROOF C = 3248 sqft.
GRAND TOTAL AREA = 26,770 sqft.
 (3196.2m²)

AVERAGE RAINFALL IN MUMBAI = 2422mm (96.25inches)

BY RULE,
 1mm OF RAIN ON 1M² OF SURFACE AREA CAN COLLECT 1litre OF WATER, WITH 10% WASTAGE FACTOR.

THEREFORE,
 1 LITRE COLLECTION
 1 M² OF SURFACE AREA = 1mm RAINFALL
TOTAL WATER COLLECTION
 3196.2M² OF SURFACE AREA CAN COLLECT
 =3196.2x2422
 =77,41,250.2 litres
SO 1 BUILDING CAN COLLECT 77,41,250.2 litres OF WATER PER YEAR.

ON AVERAGE,
PER DAY WATER COLLECTION = 77,41,250.2/365
 = 21,208 @ litres



LEGEND

S/N	NO.	NAME	SYMBOL	HEIGHT
1		WALL LIGHT		8.0mm
2		LIGHT & FAN (ON/OFF) SWITCH BOARD - FUSE		1.8mm
3		ISSUES/READING LIGHTS		16.0mm
4		CEILING FAN (1.2m, 0.9m, 0.6m)		29.0mm
5		WALL FAN		8.0mm
6		A.C. POINT		2.1mm
7		A.C. STARTER (ON/OFF) BOARD		4.0mm
8		SPOTLIGHT		26.0mm
9		WALL SWITCH		15.0mm
10		WALL LIGHT		8.0mm
11		LADY T.V.		1.0mm
12		TOILET FAN		2.4mm
13		MICrowave		1.9mm
14		CORRIDOR LIGHT (ON/OFF) SWITCH BOARD - FUSE (SW)		1.2mm
15		CORRIDOR LIGHT (ON/OFF) SWITCH BOARD - FUSE		1.2mm
16		STREET LIGHT		7.8mm
17		TRANSFORMER		-
18		KEYBOX		2.0mm
19		BELL SWITCH		1.2mm
20		BELL HOOD		2.4mm

CALCULATIONS -

POWER CONSUMPTION PER UNIT

CEILING AND WALL LED LIGHTS = (31+3)x12watts = 432 Watts
 SPOT LIGHTS = 3x50watts = 27 Watts
 WALL LAMPS = 20x 14watts = 280 Watts
 FAN = (8x100)+(1x75) = 1325 Watts
 A.C. = 5x3500watts = 17500 Watts
 GLEYSER = 3x1000 Watts = 3000 Watts
 EXHAUST FANS = 2x 50 Watts = 100 Watts

TOTAL CONSUMPTION PER UNIT = 22,714 Watts

NOTE - ALL SWITCH BOARDS WILL BE AT 1300 MM HEIGHT FROM FLOOR FINISH. OTHERWISE WILL BE SPECIFIED.

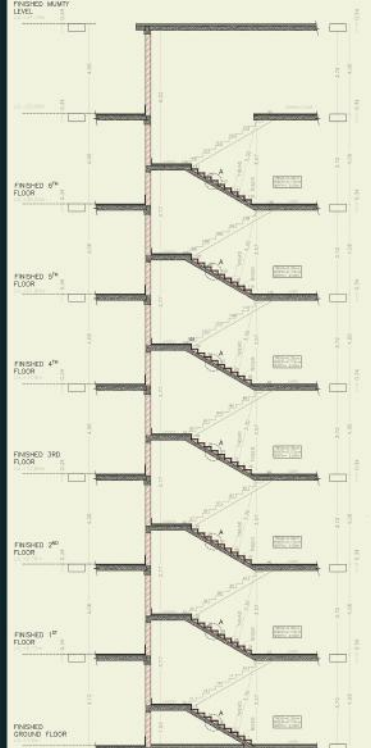
POWER CONSUMPTION PER BUILDING

TOTAL NO. OF UNITS PER FLOOR = 10 units
 CORRIDOR LIGHTS ON SINGLE FLOOR = 21x32 Watts = 672 Watts
 POWER CONSUMPTION ON SINGLE FLOOR = (22,714x10)+672 Watts = 2,27,812 watts

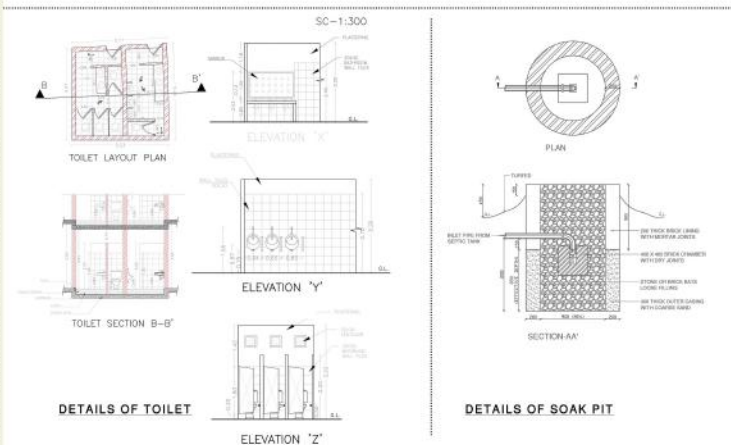
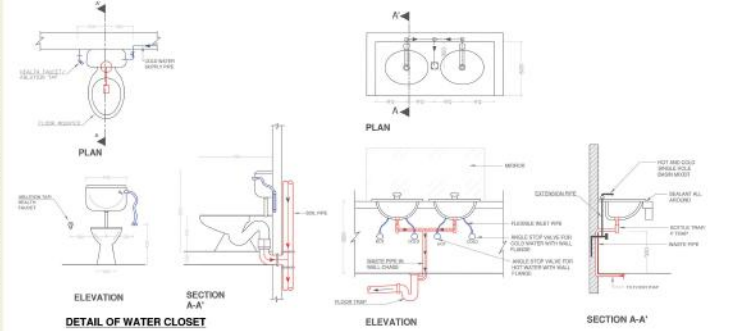
TOTAL NO. OF FLOORS = 20
 TOTAL CONSUMPTION OF A CLUSTER = 20x227812 = 45,56,240 watts
 POWER CONSUMPTION ON SITE LEVEL

TOTAL NO. OF CLUSTERS = 4
 ENERGY CONSUMPTION PER CLUSTER = 45,56,240 watts

TOTAL CONSUMPTION ON SITE = 4x45,56,240 = 1,82,24,960 watts (SHOULD BE BY LIGHTS)



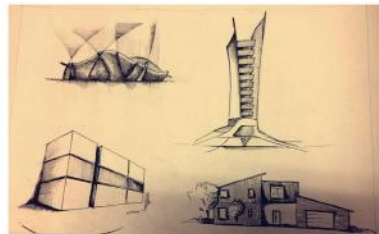
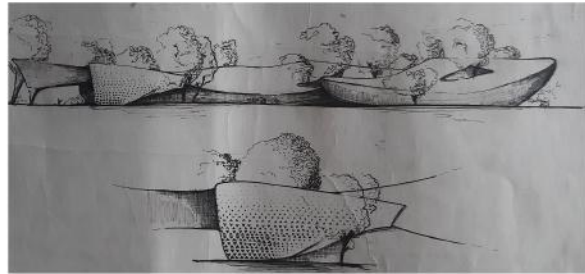
STAIRCASE SECTION



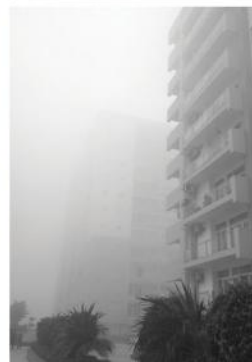
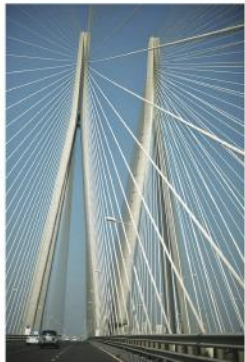
DETAILS OF TOILET

DETAILS OF SOAK PIT

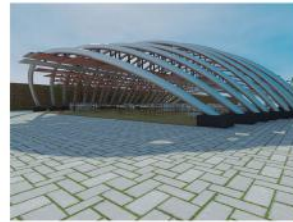
07 MODEL MAKING & GRAPHICS



08 PHOTOGRAPHY



09 MISCELLANEOUS



RE ROOT Hands-on Practice on Alternative Construction Techniques

*Laurie Baker
Centenary*
100th Birth anniversary
1918 - 17th February, 2018
Venice

