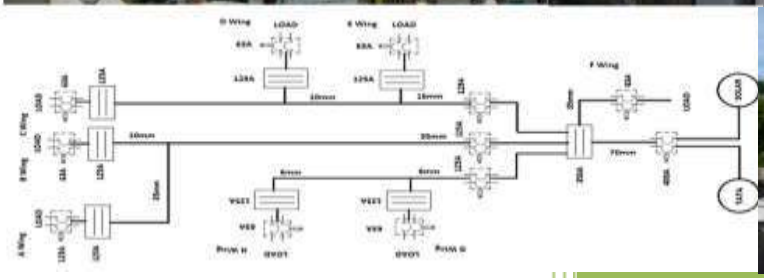
# SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

- Liasoning
- Energy Audit
- Safety Audit
- Electrical Projects
- Solar Projects

## ISMAIL YUSUF COLLEGE, Jogeshwari, Mumbai 400060.



Report By

M/s. Saur Engineers & Consultants Pvt. Ltd., Mumbai.

- Registered Energy Auditor
- Power Consultant
- Channel Partner-MNRE, Govt. of India.
- Channel Partner-MEDA, Govt. of Maharashtra.
- Solar Grid Engineers, NISE, Govt. of India
- Licensed Electrical Contractor,

# Detailed Report

## Energy-Green-Environment Audit

==========

## Assessment of Academic Year 2022-2023

==========

ISMAIL YUSUF COLLEGE

==========

NATWAR NAGAR
Jogeshwari (East), Mumbai – 400060

==========

## Consultants & Auditor

==========

**SAUR**
**Engineers & Consultants**
**Pvt. Ltd.**

REGISTRATION NO. : EA-28

==========

D-8, Plot No. 108, Akshay, Rsc-16,
Gorai-1, Borivali (west), Mumbai-400092
MAHARASHTRA
+919867499812/+919168402909

==========

# INDEX



**Followed by Annexures:**

1. **Infrastructure and Green Approach Details**
2. **Floral Diversity**
3. **Faunal Diversity**

## Acknowledgement

Energy, Green and Environment Audits have been successfully completed by M/s. Saur Engineers & Consultants Pvt. Ltd. Empanelled Energy Auditor(CLASS-A) MEDA, Government of Maharashtra and an ISO 14001:2015 company.
This activity is jointly executed by auditor and beneficiary to account Environmental diversities and development opportunity without sacrificing it's purpose. The main object was to assess the existing system for Environment concerns, High quality, professional and sustainable Environment management, Adopt best practices and Standard operating procedures.
Beneficiary premise is a leading educational service utility in semi-urban area. The college is run as per the norms and standards and having awareness and approach towards Environment saving. The management and staff are keen on saving greenery and energy on every opportunity available.
We sincerely acknowledge efforts of Management and staff members for smooth execution of audit process. We sincerely acknowledge the leaders and guides of the activity who helped to design and supported to the execution of the process

| | |
|---|---|
| Team Head | Dr. Vijay Narkhede |
| Principal | Dr. Vijay Narkhede |
| Team Member, Teaching | Dr.Amit Saraf |
| Team Member, Teaching | Nitin Shelke |
| Team Member Teaching | Dr.Ulke Ade |
| Team Member Teaching | Shubham Tanpathak |
| Team Member Teaching | Shatabdi Sawant |
| Team Member Non-Teaching | Sandeep Thoke |
| Team Member Student | Manish Parmar |
| Team Member Student | Prashant Rajbhar |
| Team Member Electricity | Pralhad |
| Team Member Plumbing | Manoj |
| Team Member Gardening | Suryakant Gulekar |
| Team Member, External Expert | Prof. Nitin Labhane |

**and all other technical, teaching, non-technical staff and students of college.**

## Certificate

**This is to certify that Energy, Green and Environment Audits have been successfully completed by M/s. Saur Engineers & Consultants Pvt. Ltd. Empanelled Energy Auditor(CLASS-A) MEDA, Government of Maharashtra and suggestions for improvements have been given. The Audit activity has been executed for beneficiary with following Details:-**

**Name of Beneficiary:** ISMAIL YUSUF COLLEGE

**Registration Number:** (NOT PROVIDED)

**Address:** Natwar Nagar, Jogeshwari (East), Mumbai

**Contact Person:** Dr. Vijay Narkhede

**Contact Number:**

**Date of Audit:** 06/01/2024

**The report is generated from data, information, answer to asked questions, standards and procedures defined by different and concerned authorities time to time, available site condition, weather condition, operational and availability conditions provided by beneficiary on the day of survey. If any changes on above said measures on any other parameters affecting these measures may lead to change, alter, in-corrections even falsifying calculations, results, recommendations and suggestions. The values, figures, amounts mentioned are indicative to the site situation and condition; it may not reflect each and every aspect of it. The report is generated restricted to given scope and available conditions and measures.**

SAUR ENGINEERS & CONSULTANTS PVT LTD EA-28

ENERGY AUDITOR "CLASS-A" No. EA-28
SAUR ENGINEERS & CONSULTANTS PVT. LTD.
Plot No. 108, D-8, Gorai-1, Borivali (W),
Mumbai - 400 091.

**Sign & Seal**

**Saur Engineers & Consultants Pvt. Ltd.**
**Registration No: EA-28**
**Empanelled Energy Auditor-CLASS A,**
**MEDA, Government of Maharashtra**

# 1. Introduction

## 1.1. Energy Audit

Energy Audit is a Basic essential activity to be done for saving in electrical billing and also allied with any energy saving projects like renewable energy project and solar projects. Energy Audit is an assessment of usage, consumption and pattern of energy used in the premises based on all above parameters along with conditions and benchmarks as resource and Building Envelope Analysis, working, operational and Maintenance Procedure Analysis, Utility Data Analysis, Load Data Analysis, Analysis of Energy Consumption, Load Evaluation, consumption pattern and billing history, back-up systems and also the administrative requirements, assessment of safety concerns, assessment of operating and occupancy schedules for Equipment, Power Quality and Environmental Parameters Analysis, Efficiency and Wastage Analysis and assessment of potential risk factors.

Energy Audit is a process of systematic identification, quantification, recording, reporting and analysis of energy usage properties of institute. It aims to analyze within and surrounding the place concerned, which will see interrelation with eco-friendly atmosphere. Energy audit is a valuable means for an Institution related to educational area to determine how and where they are connected with Energy conservation drive of nation. Understanding these conditions the institution can make plans for day to day working, future expansions as well as an eco-friendly view of life while making changes and planning for savings. It provides better understanding of impact of energy consumption on working conditions to staff and visitors. As the Energy availability is becoming an increasingly important issue for the nation, the role of higher education institute is more vital and prevalent in relation with the issue.

The rapid urbanization and economic development at local, regional and global level has led to Energy availability and quality crisis. On this background it becomes essential to adopt the system of Energy efficient and safe Campus for the institution which leads for sustainable development and at the same time persisting the quality of the same while travelling on the growth path. Moreover, it is social responsibility of a High energy consuming institution to ensure that they contribute towards the saving of Energy and thus making it available who are destitute in term of energy availability.

**1.2. Green Audit**

Green Audit is a process of systematic identification, quantification, recording, reporting and analysis of components of natural diversity properties of institute. It aims to analyse within and surrounding the place concerned, in purview of relationship with natural diversity around. Green audit is a valuable means for an Institution related to educational area to determine how and what natural resources or diversity of nature they are surrounded with or they are living with. Green Audit report includes assessment of premises which refers to nature friendly environment with lesser carbon emission in terms of initiatives, implementation, best practices, working environment, capacity utilization based on all above parameters observed during green audit along with conditions and benchmarks as Air Quality, Water Quality, Noise Data, Weather Data, Tree Diversity, Faunal Diversity as well as biodiversity conditions. Understanding these conditions the institution can make plans for day to day working, future expansions as well as a nature-friendly view of life while making changes and planning for savings.

It can create consciousness and awareness about natural diversities around and helps to standardize practices for working with observation of nature friendly work style. It provides better understanding of green diversity available surrounding conditions to staff and students. As the vanishing diversity of nature is becoming an increasingly important issue for the nation as well as the world, the role of higher education institute is more vital and prevalent in relation with the issue.

The rapid urbanization and economic development at local, regional and global level has led to several greenery and ecological crisis. On this background it becomes essential to adopt the system of Green Campus for the institution which leads for sustainable development and at the same time persisting the quality of the same while travelling on the growth path. The National Assessment & Accreditation Council, New Delhi (NAAC) has made it mandatory to all Higher educational institutions should submit a Green Audit Report. Moreover, it is social responsibility of a Higher educational institution to ensure that they contribute towards the saving of Green areas and maintaining good levels of qualities for natural resources available such as Air, water, atmosphere, flora, faunal, Etc.

### 1.3. Environment Audit

Environmental Audit is a process of systematic identification, quantification, recording, reporting and analysis of impact on components of environmental diversity properties of institute. It aims to analyse within and surrounding the place concerned, which will see interrelation with eco-friendly atmosphere. Environmental audit is a valuable means for an Institution related to educational area to determine how and where they are impacting on natural resources or diversity of nature. Environmental audit report includes assessment of premises which refers to impact on environment with carbon emission, wastages in terms of initiatives, implementation, best practices, working environment, capacity utilization based on all above parameters observed during Environmental audit along with conditions and benchmarks as Wastage types, recycling, Greenery, effect of impact, Carbon footprints as well as biodiversity conditions. Understanding these conditions the institution can make plans for day to day working, future expansions as well as an environment-friendly view of life while making changes and planning for savings.

It can create health consciousness, environmental awareness, practice green values and ethics. It provides better understanding of impact on surrounding conditions to staff and students. If self-enquiry is natural and necessary outgrowth of a quality education, it could also be stated that institutional self-enquiry is natural and necessary outgrowth of a quality educational institution. Thus it is imperative that the institution evaluates its own contributions towards a sustainable future. As the pollution and $co_2$ is becoming an increasingly important issue for the nation, the role of higher education institute is more vital and prevalent in relation with the issue.

The rapid urbanization and economic development at local, regional and global level has led to several greenery and ecological crisis. On this background it becomes essential to adopt the system of Green Campus for the institution which leads for sustainable development and at the same time persisting the quality of the same while travelling on the growth path. The National Assessment & Accreditation Council, New Delhi (NAAC) has made it mandatory to all Higher educational institutions should submit a Environmental audit Report. Moreover, it is social responsibility of a Higher educational institution to ensure that they contribute towards the saving of environment and reduce level of quantity for impact on natural resources available.

### 1.4. Objective

The Energy audit of an institution has becoming the paramount important for self-assessment of the Institution which reflects in the role of the institution in mitigation to current problem of reducing Energy availability and quality. The institution has been putting efforts to keep reducing and standardizing energy usage since its inception. Therefore the purpose of present Energy audit is to identification, quantification, recording, reporting and analysis of components of Energy utilization and electrical safety properties of institute framework of energy conservation in compliance with the applicable regulations, policies and standards. The main objectives to carrying out the energy audit are:-

- To have overview of premises
- To record and document Utility data
- To record and document Load profile data
- To record and document basic Electrical Safety observations data
- To record and document Energy Conservations (if any)

The green audit of an institution has becoming the paramount important for self-assessment of the Institution which reflects in the role of the institution in mitigation to current problem of reducing greenery and natural resources depletion. The institution has been putting efforts to keep clean and green atmosphere since its inception. Therefore the purpose of present green audit is to identification, quantification, recording, reporting and analysis of components of natural diversity properties of institute framework of Green atmosphere sustainability. The main objectives to carrying out the green audit are:-

- To record and document Air quality data
- To record and document Water quality data
- To record and document Weather/Meteorology data
- To record and document Noise Level data
- To record and document Tree Diversity data
- To record and document Faunal diversity data

The Environmental audit of an institution has becoming the paramount important for self-assessment of the Institution which reflects in the role of the institution in mitigation to current problem of reducing greenery and natural resources depletion. The institution has been putting efforts to keep clean and green atmosphere since its inception. Therefore the purpose of present Environmental audit is to identification, quantification, recording, reporting and analysis of components of surrounding environmental properties of institute framework as a part of global environment sustainability. The main objectives to carrying out the Environmental audit are:-

- To record and document Wastage type and management
- To record and document Recycling Procedures
- To record and document Impact on environment
- To record and document Carbon footprints

### 1.5. Methodology

The purpose of Energy Audit of is to ensure that the practices followed in the campus are in accordance with the Energy Conservation Policy of the Country. The methodology includes: collection of data, physical inspection of the campus, observation and review of the documentation and data analysis.

The report is based on the documents obtained while on site, visual inspection and data collection carried out during the assessment period. All the measurements recorded on site are indicative loads and duties. All readings are collected for analysis and improvement planning. Cost estimates are indicative only as more detailed design and acceptance of suggestions will be required to improve the accuracy of these estimates.

The units are selected from SI (international standards) with meters, Celsius degrees, Etc.

### 1.6. Audit Statement

The building is adopting the "Energy Efficient Campus" system for Energy conservation and sustainability. There are main three pillars i.e. Energy saving by technology and Operation & Maintenance procedures, safe working on occupational health and performance and 100% inmates demonstrating energy efficiency literacy. The goal is to maintain safe working environment, reduce energy consumption, while creating an atmosphere where inmates can work and live healthy.

# 2. OVERVIEW

## 2.1. LOCATION


| Sr. No. | Head | Details | Remark |
|---|---|---|---|
| 1. | Name of Institute | Ismail Yusuf college | |
| 2. | Category | | Educational Institute |
| 3. | Address | Natwar Nagar Jogeshwari (E) | |
| 4. | State | Maharashtra | |
| 5. | Nearest Railway Station | Jogeshwari (E) | Outstation |
| | | Jogeshwari (w) | Local |
| 6. | Nearest Bus Station | Borivali | Interstate |
| | | Borivali | Intrastate |
| 7. | Nearest Airport | CSIA Santa-Cruz | |
| 8. | Longitude | 19.1416 N | |
| 9. | Latitude | 72.8642 E | Educational Institute |

## 2.2. Synopsis

| Sr. No. | Head | Details |
|---|---|---|
| 1. | Name of Applicant Institution | Ismail Yusuf College |
| 2. | Address | Natwar Nagar Jog (E) |
| 3. | Contact Number | 9330151526 |
| 4. | Registration Certificate Number | (NOT PROVIDED) |
| 5. | Sector Type | Education |
| 6. | Senior Management Contact | (NOT PROVIDED) |
| 7. | Contact Number | 9330151526 |
| 8. | Status of Institution (Pvt. / Public) | Public |
| 9. | Company Turnover (Rs. In Lakhs) | Not Applicable |
| 10. | Number of Employees | 102 |
| 11. | Approximate Floor Area ($ft^2$) | 57468.73 |
| 12. | Year of Establishment | 1930 |
| 13. | Plot Area ($ft^2$) | 22442.76 Sqft |
| 14. | Constructed Area ($ft^2$) | 14 Acre |
| 15. | Greenery Area ($ft^2$) | 43.2 Acre |
| 16. | Roof Area ($ft^2$) | 6000 |
| 17. | No. of Buildings | 6 |
| 18. | Building Type | Grade 2 Heritage |
| 19. | Age of Building | 94 |
| 20. | Leakages/Cracks on wall/roof | Minor |
| 21. | No. of workers (Footfall) | 190 |
| 22. | No. of Customers (Footfall) | 3155 |
| 23. | Day Vs Night activity in % | Day |
| 24. | Shifts per day | 01 morning |
| 25. | Hours per shift | 7 |
| 26. | DG Set installed | ---- |
| 27. | Inverter Installed | ----- |
| 28. | Renewable Energy System installed | YES |
| 29. | (Solar/Wind/Biomass/Biofuel/Etc.) | Solar |

## 2.3. Layouts

**Sitemap**

- **Attached in annexure-I**

**Floor Map**

- **Attached in annexure-I**

**Google Map**

- **Attached in annexure-I**

## 2.4. About Premises

Ismail Yusuf College(IYC), established in 1930. (IYC) is a government institution managed by the State government, The college spread over the 54-acre campus, with approximately 80% of the area covered in greenery. IYC is one of the oldest colleges in Mumbai. Ismail Yusuf College was set up to offer courses in arts and science. Over time, it expanded its academic offerings to include commerce, and other modern disciplines, thereby catering to a broader section of students. The college is affiliated with the University of Mumbai. Ismail Yusuf College is deeply committed to promoting environmental sustainability and energy efficiency. The college recognizes the importance of maintaining a green and sustainable environment and has implemented various measures to minimize its ecological footprint. Through comprehensive Green Audits, Environmental Audits, and Energy Audits, the college continually assesses and improves its practices to conserve resources and encourage sustainable lifestyles among students and staff. The Green Audit focuses on analyzing the campus' green cover, water consumption, waste management, and biodiversity. Efforts are made to enhance the plantation and ensure proper waste segregation, recycling, and composting. The Environment Audit assesses the college's overall environmental policies, aiming to identify areas where the institution can reduce pollution and improve air and water quality. The Energy Audit examines energy consumption patterns, promoting the use of energy-efficient appliances and encouraging the use of renewable energy sources wherever possible. To supplement these audits, the college actively engages in environmental awareness and action programs through its NSS (National Service Scheme), NCC (National Cadet Corps), and DLLE (Department of Lifelong Learning and Extension) units. Swachh Bharat Abhiyan and Cleanliness Drives: The NSS and NCC units regularly organize cleanliness drives in alignment with the national Swachh Bharat Abhiyan initiative. These drives involve students, faculty, and community members, where they clean campus premises and nearby localities, promoting hygiene and environmental consciousness. Special cleanliness campaigns are held during national events like Gandhi Jayanti, where students take up the responsibility of cleaning public spaces and raising awareness about waste segregation and management.The NSS and DLLE units have been actively involved in organizing tree plantation drives on and off-campus. These efforts aim to increase the green cover and combat the urban heat island effect. Every year, several saplings are planted and cared for by students, contributing to the environmental sustainability of the college and surrounding areas. Workshops and seminars on energy conservation are regularly organized to raise awareness among students about the importance of reducing energy consumption.students actively participating in poster-making competitions to promote the cause. As part of its Energy Audit, the college has transitioned to LED lighting, installed energy-efficient devices, and explored solar energy options for campus operations. Students are encouraged to adopt energy-saving practices in their daily lives. Both NSS and DLLE regularly conduct awareness campaigns focusing on water conservation, waste reduction, and pollution control. These campaigns are designed to engage students in eco-friendly practices and prepare them to become ambassadors of environmental sustainability in their communities.Through these audits and activities, Ismail Yusuf College showcases its dedication to creating a greener and more energy-efficient campus while fostering a sense of responsibility and environmental stewardship among its students. The participation of students in these initiatives not only contributes to the college's sustainable goals but also molds them into conscientious and environmentally-aware citizens.

**2.5 Documentation:**

| ITEM | YES/NO |
|---|---|
| **a. Existing Statutory Layouts** | |
| i. Plot Map / Sketch | YES |
| ii. Building / Floor Map (For Each Floor) | YES |
| iii. Roof Terrace Map | YES |
| iv. Electrical SLD | NO |
| v. Details Electrical Control Panels | NO |
| vi. Details of Transformer installed if any | NO |
| vii. Details of Generator (DG-Set) installed if any | NO |
| viii. Details of UPS installed if any | NO |
| ix. Details of Renewable systems installed if any | NO |
| x. Utility Bills (Electricity, Gas, Water, Diesel, Etc.) for 12 months | YES |
| xi. Registers of Records | NO |
| xii. Time Tables | YES |
| xiii. Nameplate Data | NO |
| xiv. Manuals | NO |
| b. Existing safety measures (Fire extinguishers, Safety training and posters) | NO |
| c. Verification of circulars, Records of Preventive measurements | NO |
| d. Verification of Behavioural SOP | NO |
| e. Verification of O & M SOP | NO |
| f. Checking Provision for electric shock response and treatment | NO |
| g. Checking Log of Electrical works/accidents | NO |
| h. Checking Provision of Danger Sign Boards | NO |
| i. Checking Workmen involved in electric work | NO |
| j. Checking Provision and Height of work | NO |
| k. Checking availability of First Aid | YES |

# 3. Energy Audit

## 3.1. Electricity and Fuel Consumption Analysis

| SL No. | Particulars | Unit | Remark |
|---|---|---|---|
| 1 | Supply Type | LT/HT | LT |
| 2 | Utility Company | DISCOM | AECL |
| 3 | Consumer Number | NO | 153232109 |
| 4 | Meter Number | NO | 9135879 |
| 5 | Feeder | SOURCE | NA |
| 6 | Tariff | TYPE | LT IV A |
| 7 | Sanctioned Load | KW | |
| 8 | Connected Load | KW | |
| 9 | Contract Demand | KVA | 49.8 |
| 10 | RMD (Year) | KVA | |

| Other Energy Sources | | | | | |
|---|---|---|---|---|---|
| SL No | Energy/Fuel | Applicable | Unit | Use per Annum | Cost Per Annum (Rs) |
| 1 | Coal | | NA | | |
| 3 | Lignite | | NA | | |
| 4 | Fuel wood & Biomass | | NA | | |
| 5 | High Speed Diesel | | NA | | |
| 6 | Light Diesel | | NA | | |
| 7 | LSHS | | NA | | |
| 8 | LPG | | NA | | |
| 9 | Natural Gas | • PNG<br>• LNG<br>• CNG | NA | | |
| 10 | Renewable Power | | NA | | |
| 11 | Captive (DG Set) | | NA | | |

## 3.2. Consumption pattern

It is observed from Bills provided that, Institute is Consuming Very Negligible amount of Energy, due to Installed Solar GCRT System with Net Meter.
The Billing is near to Zero for each month of the audited Year.
Institute should record their actual consumption and Generation from Solar system and it has to be audited in next cycle.
It is also recommended to record building wise consumption and Generation from Solar system and it has to be audited in next cycle.

## 3.3. Future Expenses Projection on Electricity Bills for Next 20 Years

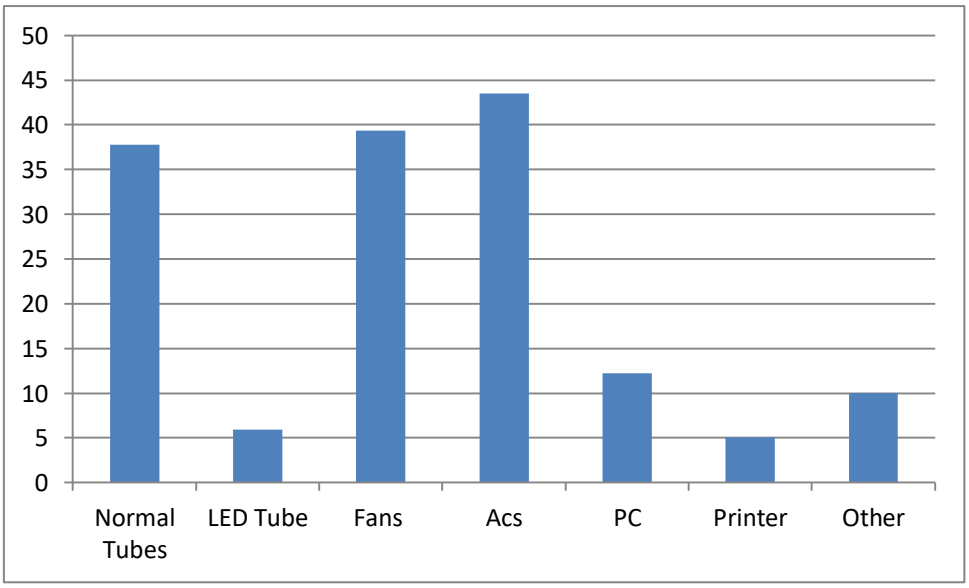
SPV GCRT system with Net meter will save Bills upto zero, subjected to decrease in efficiency, depreciation and rules and regulations.

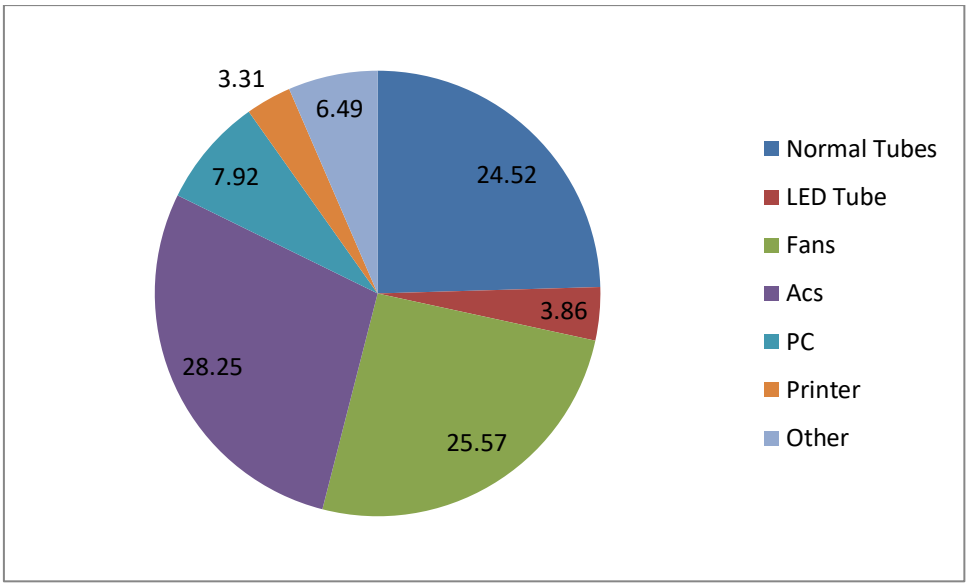
### 3.4. Load Profile

| SR. No | Floor | Room | Normal Tubes | LED Tube | Fans | Acs | PC | Printer | Other |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Ground | 6 | 62 | 0 | 44 | 0 | 0 | 0 | |
| 2 | 1 st floor | 6 | 66 | 0 | 42 | 0 | 0 | 0 | |
| 3 | 2nd floor | 6 | 66 | 0 | 42 | 0 | 0 | 0 | |
| 4 | Ground | 12 | 84 | 110 | 71 | 17 | 57 | 10 | 5 Xerox machine |
| 5 | 1 st floor | 12 | 60 | 59 | 56 | 4 | 50 | 14 | 3 smart board |
| 6 | Ground | 8 | 0 | 52 | 17 | 0 | 2 | 1 | 23 CAMERA |
| 7 | 1 st floor | 8 | 3 | 4 | 34 | 0 | 0 | 0 | |
| 8 | Basement | 2 | 8 | 8 | 4 | 0 | 2 | 2 | -- |
| 9 | Ground | 10 | 68 | 32 | 15 | 0 | 8 | 5 | |
| 10 | 1 st floor | 5 | 140 | 0 | 65 | 0 | 0 | 0 | --- |
| 11 | 2nd floor | 5 | 112 | 15 | 25 | 4 | 0 | 0 | --- |
| 12 | 3rd floor | 5 | 90 | 0 | 28 | 3 | 0 | 0 | -- |
| 13 | Ground | 6 | 24 | 5 | 4 | 1 | 2 | 1 | 1 XEROX |
| 14 | 1 st floor | 4 | 15 | 12 | 5 | 0 | 0 | 0 | - |
| 16 | Ground | 24 | 48 | 0 | 24 | 0 | 1 | 1 | --- |
| 17 | 1 st floor | 24 | 48 | 0 | 24 | 0 | 0 | 0 | -- |
| 18 | 2nd floor | 25 | 50 | 0 | 25 | 0 | 0 | 0 | -- |

| LOAD | Normal Tubes | LED Tube | Fans | Acs | PC | Printer | Other |
|---|---|---|---|---|---|---|---|
| VALUES | 37.76 | 5.94 | 39.375 | 43.5 | 12.2 | 5.1 | 10 |

| Connected Load | Operated Load |
|---|---|
| Kw | KW |
| 153.88 | NIL DUE TO SOLAR |




## 3.5. Losses

### 3.5.1. REPLACE REGULAR TUBES WITH LED

Expected approximate Saving is 12.25 KW and 151kwh per day per billing cycle.

### 3.5.2. REPLACE REGULAR FANS WITH BLDC

Expected approximate Saving is 12.75 KW and 79kwh per day per billing cycle.

### 3.5.3. Power Factor

Since PF Penalty and loss is charge on percentage basis and your Bill is nearly zero hence PF penalty doesn't affect you financially. But for good quality of Power and Service it is recommended to have PF at 0.999 level. It is observed that your PF is Leading which is a problem and can be solved after PQ analysis. Hence it is recommended to Perform PQ analysis followed by corrective measures.

## 4. GREEN AUDIT

### 4.1. Floral Diversity

College have kept record of their Floral Diversity.
Details in Annexure-II

### 4.2. Faunal Diversity

College have kept record of their Faunal Diversity.
Details in Annexure-III

### 4.3. Green Approach

| Sr. No. | ACTIVITY | YES/NO | REMARK |
|---|---|---|---|
| 1. | E-waste collection box: | NO | |
| 2. | Dry-waste collection box: | YES | Institute has separate Dry waste Management system. Dry waste is collected in separate designated box which is disposed through Municipal waste management system. |
| 3. | Wet-waste collection box: | YES | Institute has separate wet waste Management system. Wet waste is collected in separate designated box which is partially used for composting and Rest is disposed through Municipal waste management system. |
| 4. | Paper-waste collection box: | NO | |
| 5. | Cleaning: | YES | Institute runs good cleaning practice. |
| 6. | Composting: | YES | Institute composts partial of their wet waste. |
| 7. | Safe and waste free environment drive: | YES | Institute runs Safe and waste free environment drive within as well as outside campus. |
| 8. | Sewage treatment | NO | |
| 9. | Waste management | NO | |
| 10. | Swachh Bharat campaign | YES | Institute runs Swachh Bharat campaign actively. |
| 11. | Water resources | YES | Institute have sufficient water resources either owned or Municipal supply. |
| 12. | Rain water harvesting: | YES | Institute have implemented Rain water harvesting |
| 13. | Waste water treatment: | YES | Institute dilutes waste water generated through chemical and other laboratories under guidance of qualified professionals. |
| 14. | RO water treatment | YES | Institute uses RO plants to purify drinking water |
| 15. | Greenery: | YES | Institute has maintained Greenery within campus |
| 16. | Plantation: (trees and plants in campus) | YES | Institute do Plantation in campus during monsoon. |

| | | | |
|---|---|---|---|
| 17. | Plantation drive by the institute: (trees and plants outside campus) | YES | Institute do Plantation outside campus during monsoon. |
| 18. | LED lights: | YES | Institute have replaced Conventional lights with LEDs at various locations. |
| 19. | Energy & environment monitoring systems | NO | |
| 20. | Save energy posters | YES | Institute have placed save energy posters at visible locations. |
| 21. | Energy management | NO | |
| 22. | Renewables (solar/wind) | YES | Institute has implemented SPV GCRT Plant |
| 23. | Sensor based equipment | NO | |
| 24. | Switch off posters | YES | Institute have placed Switch OFF posters at visible locations. |
| 25. | Emergency contact numbers list: | NO | |
| 26. | Health/medical facilities | YES | Institute has In-house First aid Facility. |
| 27. | Critical safety parameters: | NO | |
| 28. | Disaster management training | NO | |
| 29. | Awareness, approach, Seminars | YES | Institute conduct/participate in seminars, lectures, symposiums for good environment awareness and approach. |
| 30. | Code of conducts, SOPs | NO | |

# 5. ENVIRONMENT AUDIT

## 5.1. Air Quality

| POLLUTANTS | PM 2.5 | PM 10 | O3 | CO | NO2 | SO2 |
|---|---|---|---|---|---|---|
| LIMIT | 35 | 150 | 21 | 35 | 10 | 6 |
| UNIT | µgm/m$^3$ | µgm/m$^3$ | µgm/m$^3$ | µgm/m$^3$ | µgm/m$^3$ | µgm/m$^3$ |
| VALUE | 18 | 24 | 7 | 4 | 3 | 2 |
| REMARK | OK | GOOD | GOOD | GOOD | GOOD | OK |

## 5.2. Water Quality

### 5.2.1. Water Quality

| SL NO | CATAGORY | LOCATION | QUALITY | | | | | QUANTITY | USAGE |
|---|---|---|---|---|---|---|---|---|---|
| | | | TDS | | PH | | ORP | | |
| | | | Before filtration | After filtration | Before filtration | After filtration | | | |
| 1 | Municipal/Local Body Water supply | Main Building | 200 | 160 | 7.1 | 7.1 | 225 | NOT MEASURED | Drinking |
| | | Science Building | 220 | 166 | 7.2 | 7.2 | 220 | | |
| | | Bhasha Bhavan | 210 | 164 | 7.3 | 7.3 | 218 | | |
| | | Hostel | 215 | 167 | 7.2 | 7.2 | 221 | | |
| | | Gymkhana | 210 | 168 | 7.1 | 7.1 | 223 | | |
| 2 | Bore well | Behind the Hostel Building | | | | | | NOT MEASURED | Flush Non Potable |
| 3 | Open Well | Near Ground | | | | | | NOT MEASURED | Flush Non Potable |
| 4 | Any other source | ---- | -- | | --- | | -- | -- | -- |

### 5.2.2. Filtration

Filtration is done through Reverse Osmosis (RO) AQUA MACHINEs.

### 5.2.3. Water Balance

| SL NO | HEAD | UNIT | QUANTITY |
|---|---|---|---|
| 1 | AVERAGE DAILY OCCUPANTS | NO | 3300 |
| 2 | AVERAGE DAILY VISITORS | NO | 200 |
| 3 | WATER REQUIREMENT FOR OCCUPANTS | LPD | 148500 |
| 4 | WATER REQUIREMENT FOR VISITORS | LPD | 3000 |
| 5 | TOTAL WATER REQUIREMENT | LPD | 151500 |
| 6 | INHOUSE WATER SOURCE | LPD | 0 |
| 7 | OUTSOURCED WATER | LPD | 0 |
| 8 | HARVESTED RAIN WATER | LPA | 0 |
| 9 | SURPLUS/SHORTFALL WATER | LPA | -30300000 |

**Note:**

1. Water use is not measured.
2. Water use for Trees and Plantation is not defined.
3. Capacity of Rain water harvesting is not defined.

### 5.3. Atmosphere

| SL No | Floor | Illumination | Temperature | Humidity | Noise level |
|---|---|---|---|---|---|
| **ANNEX BUILDING** | | | | | |
| 1 | **Ground** | 340 | 28 | 64.2 | 36 |
| 2 | **1 st floor** | 380 | 27 | 62.5 | 36.5 |
| 3 | **2nd floor** | 300 | 28 | 64 | 35 |
| **MAIN BUILDING** | | | | | |
| 4 | **Ground** | 380 | 27 | 63 | 34 |
| 5 | **1 st floor** | 348 | 28 | 64.2 | 36 |
| **BHASHA BHAVAN** | | | | | |
| 6 | **Ground** | 378 | 29 | 65.2 | 36 |
| 7 | **1 st floor** | 340 | 29 | 64.3 | 34 |
| 8 | **Basement** | 300 | 28 | 64.1 | 37 |
| **SCIENCE OLD/NEW** | | | | | |
| **9** | **Ground** | 375 | 28 | 63.5 | 34 |
| **10** | **1 st floor** | 346 | 27 | 65.4 | 37 |
| **11** | **2nd floor** | 345 | 28 | 64.6 | 36 |
| **12** | **3rd floor** | 342 | 27 | 64.3 | 35 |
| **GYMNASIUM** | | | | | |
| **13** | **Ground** | 376 | 27 | 65.3 | 35 |
| **14** | **1 st floor** | 378 | 27 | 64.2 | 35 |
| **HOSTEL** | | | | | |
| **16** | **Ground** | 340 | 27 | 64.3 | 34 |
| **17** | **1 st floor** | 347 | 26 | 65.5 | 35 |
| **18** | **2nd floor** | 345 | 27 | 64.2 | 34 |

**Note:**

1. Lux levels are optimum.
2. Temperature levels are optimum.
3. Humidity Levels are higher than normal.
4. Noise levels are optimum.

### 5.4. Wastage Management

1. Do the premises generate wastage?
   YES-Minor
2. What type of wastage and quantity is generated? What are actions taken on it?

| Sr. No. | Wastage Type | Quantity | Action |
|---|---|---|---|
| 1. | Biomass | 30-40 KGPD | Put near tree roots |
| 2. | Paper | 2-3 KGPD | Municipal Waste |
| 3. | Water | Non- Quantified | NA |
| 4. | E-Waste | Non- Quantified | Practice of Auctioning old Computers |
| 5. | Bio-Hazardous | NA | NA |
| 6. | Fuel | NA | NA |
| 7. | Production | NA | NA |
| 8. | Process | NA | NA |
| 9. | Food | NA | NA |
| 10. | Man-Hours | NA | NA |

**3. Recycling Procedures**

1. Does Premises users aware about Recycle or Re-use of resources used?
   NO
2. Does institute run wastage and recycling awareness campaign for users?
   YES Periodical seminars
3. Does institute have SOP for wastage and recycling procedures?
   NO
4. Does Premises Recycle or Re-use resources used?
   NO

**4. Wastage Recovery & Conservation**

a. Any Energy conservation method applied?
   NO
b. Any SOP on operation and maintenance is defined?
   NO
c. Any Energy conservation devices installed?
   NO
d. Any alternative Energy source is installed?
   YES SPV GCRT
e. Does the SWITCH OFF Drills conducted regularly?
   NO
f. Are electronic and smart devices run on power saving mode? (computers, Etc)
   YES

g. Does electronic & other equipment run standby mode? How many hours?
   NO
h. Does institute perform Water quality monitoring?
   NO
i. Have you installed rain water harvesting system?
   YES
j. Any SOP on operation and maintenance of plumbing system is defined?
   NO
k. Any SOP on Water utilization is defined?
   NO
l. Does institute record water usage?
   NO
m. Are rooms well ventilated?
   YES
n. Does institute perform Air quality monitoring?
   NO
o. Any vehicles used? Type of Fuel? Quantity of fuel consumed?
   NO
p. Any third-party agreements for
   i. E-waste Pick-up agreements
      NO
   ii. Paper waste Pick-up agreements
      NO
   iii. Bio hazardous waste Pick-up agreements.
      NO
   iv. Chemical Pick-up agreements
      Dilution within campus

## 5.5. Carbon Footprint

### 5.5.1. Emission

| HEAD | VALUE | UNIT |
|---|---|---|
| **Electricity Consumption** | 160 | **KWh** |
| **Diesel Consumption** | 40 | **Ltrs** |
| **Other Energy Consumption** | 1.40 | **$M^3$** |
| **Impact** | | |
| **Co2 Generated** | 80.4 | Kg |
| **Water Equivalent** | 300 | LTR |

### 5.5.2. Sequestration

#### 5.5.2.1. CO2

| Sl No | Method | Quantity | Saving |
|---|---|---|---|
| 1 | Trees | 2225 | 48861 |
| 2 | Recycling Papers | 0 | 0 |
| | **TOTAL** | | 48861 |

#### 5.5.2.2. WATER

Capacity of 720000LPA considering Total Roof area 600$m^2$ approximate and Average Rainfall is 1.2 meter/year

### 5.5.3. Observations

Carbon Footprint of Institute is 0.02 per person

Carbon Sequestration of Institute is 13.96 per person

### 5.5.4. Recommendations

Carbon Sequestration is observed more than sufficient.

Carbon Footprint found Excellent category.

## 6. Recommendations

**PART A GENERAL**

1. It is recommended that institute shall prepare and maintain Electrical SLD.
2. It is recommended that institute shall prepare and maintain Details Electrical Control Panels.
3. It is recommended that institute shall prepare and maintain Registers of Records
4. It is recommended that institute shall prepare and maintain Nameplate Data of all equipment
5. It is recommended that institute shall prepare and maintain Manuals of all equipment
6. It is recommended that institute shall preserve Electricity, Water and other utility bills.
7. It is recommended that institute shall prepare and maintain Log of Electrical works/accidents
8. It is recommended that institute shall provide safety equipments like Gloves, Shoes, Etc. for the workers.
9. It is recommended that Emergency evacuation plan to be prepared and displayed at centre place.
10. It is recommended that institute shall Install and maintain Fire Extinguishers and sand Buckets.
11. It is recommended that institute shall prepare and maintain circulars, Records of Preventive measurements, Behavioral SOP, O & M SOPs, Danger Sign Boards and First Aid Kits.
12. It is recommended that institute to assign anybody responsible to maintain data regarding audits, management and recommendations since It is found that institute is lagging in data keeping.
13. It is recommended that institute shall undergo Energy and Green Audit Every two years.

**PART B ENERGY AUDIT**

1. It is recommended that to implement recommendations under losses section:-
    a. Expected approximate Saving is 12.25 KW and 151kwh per day per billing cycle.
    b. Expected approximate Saving is 12.75 KW and 79kwh per day per billing cycle.
    c. It is recommended to Perform PQ analysis followed by corrective measures.
2. It is recommended that Institute should record their actual consumption and Generation from Solar system and it has to be audited in next cycle.
3. It is recommended that Institute should record building wise consumption and Generation from Solar system and it has to be audited in next cycle.
4. It is recommended that Institute should record other electricity bills, if any; and comparison of the same with Recorded consumption and Generation data and it has to be audited in next cycle.
5. It is recommended that to undergo detail energy audit considering following points
    a. All the connected loads in each room has to be listed down
    b. All rooms working time has to be noted down.
    c. Any extra activity such as program/function/gathering, Etc. has to be recorded in terms of connected load, extra load, running time.
    d. Extra consumption in particular month and reason for the same.
    e. Manual and remote monitoring of consumption.
6. It is recommended that data of Renewable Energy source installed and it's impact on consumption is to be observe, record and maintain either manually or automatically. Also the details of installed system to be procured from vendor and preserved.
7. It is recommended to install IOT based online PQnEMS System to collect all the data.
8. It is recommended that Keep AC temperature to $26^0$ C.
9. It is recommended that to Clean Luminaries, Fans, ACs regularly to increase efficiency.
10. It is recommended that Prepare and observe SOPs for maintenance of equipments.
11. It is recommended that Following tests are to be conducted at-least annually
    – Neutral Current
    – Load Unbalance
    – Earth Resistance
    – Illumination
    – Power Quality
    – Thermography

**PART C GREEN AUDIT**

1. It is recommended that institute shall use environment friendly cleaning agents to clean the premises.
2. It is recommended that Institute may implement biogas plant from sewage waste.
3. It is recommended that Institute practices waste management but efforts are scattered, institute shall implement Target oriented waste management system.
4. It is recommended that Institute to install Energy & environment monitoring systems
5. It is recommended that institute shall implement Target oriented Energy management system.
6. It is recommended that institute shall implement Sensor based lights in passage.
7. It is recommended that institute shall have available Medical officer or to be empanelled nearby physician for emergency support.
8. It is recommended that institute shall undertake electrical safety Audit.
9. It is recommended that institute shall designate people and they shall undergo Disaster Management Training.
10. It is recommended that Avoid Draft printing, use email/Whatsapp maximum.
11. It is recommended that institute shall prepare observe and undergo Code of conducts and Standard Operating Procedures for Energy, Green and Environment management system.
12. It is recommended that institute shall arrange Exhibitions and identification programs for students and locals to understand medicinal plants.
13. It is recommended that institute shall gift small plants or seeds/seed-balls to students leaving or going to native place and encourage them to plant at their own premises.

**PART D ENVIRONMENT AUDIT**

1. It is recommended that institute shall observe Quality from RO output. To maintain the quality, water testing has to be done in every season (after every four months). A standard operating process has to be defined, documented and observed for tank and pipeline cleaning and maintenance.
2. It is recommended that institute shall Quantify the output of Rain Water Harvesting System and increase the capacity to mitigate shortfall.
3. It is recommended that institute shall Install Meters to measure actual demand and usage of water.
4. It is recommended that institute shall maintain accurate level, windows to be cleaned regularly, obstacles on windows to be moved, Proper capacity and efficiency of luminaries to be used and luminaries also to be cleaned once in a week.

## 7. Disclaimer

The report is generated from data, information, answer to asked questions, standards and procedures defined by different and concerned authorities time to time, available site condition, weather condition, operational and availability conditions provided by beneficiary on the day of survey. If any changes on above said measures on any other parameters affecting these measures may lead to change, alter, in-corrections even falsifying calculations, results, recommendations and suggestions. The values, figures, amounts mentioned are indicative to the site situation and condition; it may not reflect each and every aspect of it. The report is generated restricted to given scope and available conditions and measures.

## 8. Conclusion

We hereby conclude report for "Energy Audit, Green Audit and Environment Audit" of the Work done under scope of work for "ISMAIL YUSUF COLLEGE, Natwar Nagar, Jogeshwari (East), Mumbai – 400060." Please study it thoroughly and implement recommendations and suggestions at earliest.

ISMAIL YUSUF COLLEGE

# GREEN APPROACH OF INSTITUTE

## ANNEXURE-I

**Dr. Vijay Narkhede & Team**

THIS DATA IS COLLECTED AND PREPARED BY THE TEAM FOR GREEN AUDIT

**1.E-Waste Collection Box:** Ismail Yusuf College has adopted a zero-waste policy by auctioning or donating old laptops and computers to employees. The initiative emphasizes, "Say 'NO' to Electronic Waste!" and encourages students and staff to donate e-waste for a cleaner, greener environment. "Recycle it all, no matter how small!"

**2.Dry Waste Collection Box:**

Dry waste collection bins have been installed at various points across the campus to encourage effective waste segregation. These bins are dedicated to collecting dry waste such as paper, cardboard, dry leaves, and other recyclable materials. By providing this facility, the college promotes responsible waste disposal habits among students, faculty, and staff. This initiative helps reduce the amount of waste that ends up in landfills and supports recycling efforts. It also contributes to maintaining a cleaner and more sustainable campus environment. Regular monitoring ensures that the bins are used correctly, fostering an understanding of environmental responsibility. Additionally, this step aligns with the institution's broader commitment to promoting sustainability and eco-friendly practices. Through this initiative, the college educates its community on the importance of waste management and environmental preservation, inspiring positive change.

**3.Wet Waste Collection Box:**

Wet waste collection boxes have been placed across the campus, particularly near the canteen and mess, to ensure the proper disposal of organic waste. This waste, consisting mainly of food scraps and biodegradable materials, is collected separately for composting or handed over to the BMC for processing. The composting process transforms this waste into organic fertilizer, which is used to nourish the college’s gardens, enhancing soil quality and plant growth. By composting, the college not only reduces the volume of waste sent to landfills but also promotes eco-friendly practices. This initiative supports the institution’s goal of maintaining an ecological balance on campus. Faculty and students are encouraged to participate actively in this program, fostering environmental awareness. The college’s efforts in composting also contribute to the broader community's sustainability efforts. Ultimately, this practice strengthens the institution's commitment to green initiatives and responsible waste management.

**4. Cleaning:**

The college have huge area 54 acre. regular campus cleaning by housekeeping staff to maintain a clean, hygienic, and welcoming environment for all. Even also college conducted cleaning drive. These drives ensure that classrooms, common areas, and outdoor spaces remain spotless, promoting the health and well-being of both students and staff. By engaging the entire college community in these efforts, the initiative instills a sense of responsibility towards the environment and cleanliness. The frequent cleaning activities help reduce the spread of germs, contributing to a healthier campus. Students and faculty are encouraged to participate, fostering a shared commitment to maintaining the campus's cleanliness. This initiative also highlights the importance of sustainability by emphasizing the need to care for our surroundings. Regular cleaning not only enhances the campus's aesthetic appeal but also promotes a positive learning atmosphere. Through these efforts, the college reinforces its dedication to providing a conducive

space for education and growth. The cleaning drives are a vital part of the institution's broader focus on environmental stewardship and community engagement.

**5. Composting**: The college processes organic waste generated on campus through composting, turning food scraps and biodegradable materials into nutrient-rich compost. This compost is then used to nourish the college's gardens, improving soil quality and supporting healthy plant growth. The initiative promotes sustainable waste management by diverting organic waste from landfills and reducing the institution's environmental footprint. By reusing waste in this way, the college contributes to creating greener and more vibrant campus spaces. This practice aligns with the institution's commitment to sustainability and eco-friendly initiatives, fostering environmental responsibility among students and staff.

**6. Safe and Waste-Free Environment Drive:** The college conducts regular drives to maintain a waste-free campus, focusing on responsible waste disposal, environmental cleanliness, and plastic collection efforts.

**7. Swachh Bharat Campaign**:

The college actively participates in the Swachh Bharat campaign, organizing regular cleanliness drives and awareness programs to emphasize the importance of sanitation and maintaining a clean environment. These initiatives are aimed at fostering a sense of civic responsibility among students, staff, and faculty. Through these efforts, the college works towards creating a cleaner and healthier campus, while also contributing to the nationwide movement for a cleaner India. The campaign involves the entire college community, encouraging participation in activities such as cleaning public spaces, waste segregation, and hygiene education. The institution regularly holds workshops and seminars to raise awareness about the significance of cleanliness in daily life. By promoting these practices, the college not only enhances its campus environment but also instills lifelong habits of cleanliness and environmental stewardship in its students. These efforts reflect the college's commitment to supporting national goals of sanitation and public health.

**8. Rainwater Harvesting:**

he college has established a rainwater harvesting system with a storage capacity of 147,750 liters, effectively capturing and conserving rainwater. This harvested water is utilized for various campus activities, such as irrigation, maintenance, and hygiene needs, reducing the institution's reliance on external water sources. The system promotes sustainable water management and helps conserve valuable resources. Regular upkeep ensures the system operates efficiently throughout the year. This initiative reflects the college's commitment to environmental sustainability, contributing to long-term water conservation efforts. Through rainwater harvesting, the campus actively supports eco-friendly practices while meeting its water demands responsibly.

**9. Greenery:** The college has successfully maintained lush green surroundings through consistent plantation drives, significantly enhancing the campus's natural beauty. One of the key initiatives includes the creation of a **Miyawaki forest**, which supports rapid, dense growth of

native plants and contributes to an approximately 80% green coverage across the campus. These efforts not only beautify the environment but also promote a healthier atmosphere by improving air quality. The diverse plant life nurtured through these drives fosters increased biodiversity, creating habitats for various species. Regular maintenance and new plantings ensure the sustainability of these green spaces. The college's commitment to greenery reflects its dedication to environmental stewardship and sustainable practices. By prioritizing such initiatives, the campus provides a serene and enriching setting for students and staff. These green spaces also offer educational opportunities related to ecology and conservation. Overall, the college's focus on greenery supports a vibrant, balanced ecosystem within the campus.

**11. Plantation (Trees and Plants on Campus**): The NSS and NCC units at the college lead annual plantation drives to enhance campus greenery and promote environmental stewardship. These drives involve planting a variety of trees and plants, contributing to the campus's overall aesthetic and ecological health. In addition, the college has established a Miyawaki forest, which supports the rapid growth of native plant species and increases green coverage. This garden not only beautifies the campus but also fosters biodiversity and provides a healthier environment. Through these initiatives, the college actively engages in sustainable practices and encourages students to participate in preserving and enhancing their surroundings.

**12.Plantation Drive by the Institute (Trees and Plants Outside Campus**): The college's NCC and NSS departments actively engage in plantation drives outside the campus, extending their commitment to environmental sustainability beyond institutional boundaries. These initiatives involve planting trees and plants in various community areas, such as local parks, roadsides, and public spaces. By contributing to these external efforts, the college supports broader ecological goals and enhances green spaces in the surrounding community. These drives not only improve local environmental conditions but also raise awareness about the importance of tree planting and conservation. Students and staff participate enthusiastically, fostering a sense of civic responsibility and environmental stewardship. Through these outreach activities, the college strengthens its role in promoting sustainability and positively impacts the broader environment. The ongoing efforts demonstrate the institution's dedication to contributing to a greener, healthier world.

**13.LED Lights:** Energy-efficient LED lights have been installed throughout the campus, significantly reducing electricity consumption. These lights offer a more sustainable lighting solution compared to traditional bulbs, helping to lower the college's carbon footprint. By adopting LED technology, the college not only cuts down on energy use but also decreases maintenance costs and extends the lifespan of lighting fixtures. This initiative supports the institution's commitment to environmental responsibility and resource conservation. The transition to LED lighting reflects a broader effort to implement eco-friendly practices and promote sustainability on campus. Through these measures, the college contributes to a greener, more energy-efficient environment.

**14.Save Energy Posters**: Posters promoting energy conservation are prominently displayed across the campus, aiming to raise awareness and encourage sustainable energy-saving habits among the college community. These informative posters highlight practical tips and strategies

for reducing energy consumption, such as turning off lights and unplugging unused electronics. The initiative also involved student participation in creating these posters, fostering a sense of ownership and engagement in the energy conservation effort. By showcasing student creativity, the college emphasizes the importance of collective responsibility in sustainability. The posters serve as a constant reminder to adopt eco-friendly practices and contribute to reducing the institution's overall energy footprint. This campaign reflects the college's commitment to promoting environmental stewardship and creating a culture of energy efficiency.

**18.Renewable Solar Energy**: The college has installed solar panels, embracing renewable energy to reduce dependence on conventional energy sources. This initiative supports sustainable development by harnessing solar power to meet some of the campus's energy needs. The use of solar panels helps lower electricity costs and minimizes the institution's carbon footprint. By integrating renewable energy, the college demonstrates its commitment to environmental responsibility and resource conservation. The solar panels contribute to a cleaner, greener campus and serve as a practical example of sustainable energy practices. This approach not only benefits the environment but also educates the college community about the advantages of renewable energy.

**19.Switch Off Posters:** Posters reminding students and staff to switch off lights, fans, and electronic devices when not in use are prominently displayed throughout the campus. These visual reminders promote energy conservation by encouraging everyone to adopt simple yet effective habits. By turning off unnecessary equipment, the campus reduces its overall energy consumption and minimizes waste. The posters serve as a constant nudge towards more mindful energy use, helping to lower the institution's carbon footprint. This initiative fosters a culture of environmental responsibility and supports the college's broader sustainability goals.

**20.Emergency Contact Numbers List**: The college ensures that a comprehensive list of emergency contact numbers, including health services, fire department, and local authorities, is accessible in key areas across the campus.

**21.Health and Medical Facilities**: The college provides accessible health and medical facilities, including first-aid services, ensuring the health and well-being of students and staff.

**22.Disaster Management Training:** The college conducts regular disaster management training for students and staff, equipping them with the necessary skills and knowledge to effectively respond to natural disasters and emergencies.

**23.Seminars:** The college organizes regular seminars on topics such as sustainability, disaster preparedness, and health awareness, fostering the academic and personal growth of the college community.


E-Waste
Management


सूखा
कचरा


**Cleaning:**




**Composting**:

**12.Rainwater Harvesting:**

**15.Greenery:**

**16.Plantation (Trees and Plants on Campus)**:

**17.Plantation Drive by the Institute (Trees and Plants Outside Campus)**:

**18.LED Lights:**

**20.Save Energy Posters**:


**22.Renewable Solar Energy**:

**24.Switch Off Posters:**

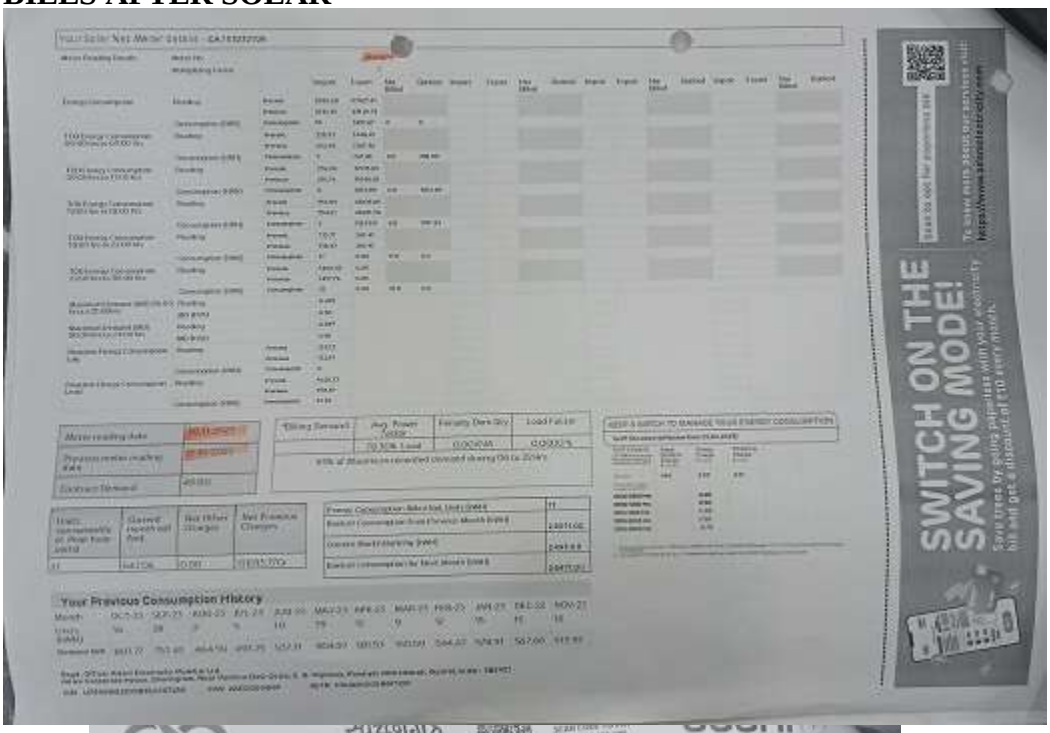

**26.Health and Medical Facilities**:

**28.Disaster Management Training:** The college conducts regular disaster management training for students and staff, equipping them with the necessary skills and knowledge to effectively respond to natural disasters and emergencies.


**29.Seminars:** The college organizes regular seminars on topics such as sustainability, disaster preparedness, and health awareness, fostering the academic and personal growth of the college community.

Awareness, Approach, Code of Conduct, SOPs: The college promotes awareness of sustainability and environmental responsibility, adheres to a systematic approach to eco-friendly practices, and upholds a code of conduct through well-defined Standard Operating Procedures (SOPs).

**BILLS AFTER SOLAR**




Government of Maharashtra's

# Ismail Yusuf College

Jogeshwari (East) Mumbai- 400060

## DEPARTMENT OF BOTANY

### Floral Diversity

| Sr. No | Botanical names | Common names | Family | Quantity |
|---|---|---|---|---|
| 1 | *Pongamia pinnata* | Karanj | Fabaceae | 105 |
| 2 | *Borassus flabellifer* | Taad | Arecaceae | 200 |
| 3 | *Grewia tilifolia* | Dhaman | Tiliaceae | 40 |
| 4 | *Lagerstroemia speciosa* | Jarul | Lythraceae | 02 |
| 5 | *Ficus exasperata* | Karvat | Moraceae | 05 |
| 6 | *Tamarindus indica* | Tamarindus | Fabaceae | 18 |
| 7 | *Wattakaka volubilis* | Harandodi | Apocynaceae | 01 |
| 8 | *Moringa oleifera* | Drumstick Tree | Moringaceae | 04 |
| 9 | *Holoptelea integrifolia* | Vavala | Ulmaceae | 13 |
| 10 | *Streblus asper* | Sand paper tree | Moraceae | 69 |
| 11 | *Ficus hispida* | Kala umbar | Moraceae | 50 |
| 12 | *Bridelia retusa* | Asana | Phyllanthaceae | 34 |
| 13 | *Ziziphus jujuba* | Ber | Rhamnaceae | 06 |
| 14 | *Lannea coromendelica* | Moi | Anacardiaceae | 56 |
| 15 | *Morinda tinctoria* | Bartundi | Rubiaceae | 14 |
| 16 | *Azadirachta indica* | Neem | Meliaceae | 15 |
| 17 | *Phoenix sylvestris* | Khajur | Arecaceae | 12 |
| 18 | *Muntingia calabura* | Singapore cherry | Muntingiaceae | 25 |
| 19 | *Ficus religiosa* | Peepal | Moraceae | 07 |
| 20 | *Peltophorum pterocarpum* | Copprpod | Caesalpiniaceae | 24 |
| 21 | *Mimosops elengi* | Bakul | Sapotaceae | 02 |
| 22 | *Terminalia catappa* | Jangli badam | Combretaceae | 06 |
| 23 | *Mangifera indica* | Mango | Anacardiaceae | 25 |
| 24 | *Ficus benghalensis* | Banyan Tree | Moraceae | 12 |
| 25 | *Syzygium cumini* | Jamun | Myrtaceae | 18 |
| 26 | *Gmelina arborea* | Sivan | Verbenaceae | 02 |
| 27 | *Senna alexandrina* | Indian Senna | Caesalpiniaceae | 04 |
| 28 | *Psidium guajava* | Guava | Myrtaceae | 03 |
| 29 | *Annona squamosa* | Sitaphal | Annonaceae | 18 |
| 30 | *Hyophorbe lagenicaulis* | Bottle Palm | Arecaceae | 05 |
| 31 | *Artocarpus heterophyllus Lam.* | Jackfruit | Moraceae | 16 |
| 32 | *Mitragyna parvifolia* | True Kadamb | Rubiaceae | 08 |
| 33 | *Leucaena leucocephala* | Safed Babool | Mimosaceae | 48 |

| | | | | |
|---|---|---|---|---|
| 34 | *Polyalthia longifolia* | False Ashok | Annonaceae | 88 |
| 35 | *Cocos nucifera* | Coconut | Arecaceae | 12 |
| 36 | *Annona reticulata* | Ramphal | Annonaceae | 02 |
| 37 | *Pithecellobium dulce* | Vilayatichincha | Fabaceae | 50 |
| 38 | *Bombax ceiba* | Silk Cotton Tree | Malvaceae | 18 |
| 39 | *Anogeissus latifolia* | Dhavada | Combretaceae | 02 |
| 40 | *Sterculia urens* | Gum karaya | Malvaceae | 05 |
| 41 | *Samanea saman* | Rain Tree | Fabaceae | 53 |
| 42 | *Delonix regia* | Gulmohar | Caesalpinaceae | 30 |
| 43 | *Butea monosperma* | Palas | Fabaceae | 01 |
| 44 | *Melia azedarach* | Chinaberry tree | Meliaceae | 01 |
| 45 | *Manilkara hexandra* | Khirni | Sapotaceae | 02 |
| 46 | *Cordia dichotoma* | Bhokar | Boraginaceae | 07 |
| 47 | *Ceiba pentandra* | Kapok | Malvaceae | 06 |
| 48 | *Alstonia scholaris* | Saptaparni | Apocynaceae | 09 |
| 49 | *Adenanthera pavonina* | Ratangunja | Mimosaceae | 25 |
| 50 | *Ficus glomerata* | Gular | Moraceae | 05 |
| 51 | *Albizia lebbeck* | Siris Tree | Fabaceae | 05 |
| 52 | *Putranjiva roxburghii* | Putranjiva | Putranjivaceae | 41 |
| 53 | *Bauhinia racemosa* | Aapta | Fabaceae | 10 |
| 54 | *Wrightia tinctoria* | Kala kuda | Apocynaceae | 09 |
| 55 | *Cascabela thevetia* | Peeli kaner | Apocynaceae | 01 |
| 56 | *Sterculia foetida* | Wild Almond | Malvaceae | 04 |
| 57 | *Barringtonia asi atica* | Samudraphal | Lecythidaceae | 01 |
| 58 | *Aegle marmelos* | Bael | Rutaceae | 03 |
| 59 | *Saraca asoca* | Sita Ashok | Fabaceae | 01 |
| 60 | *Adina cordifolia* | Haldu | Rubiaceae | 01 |
| 61 | *Caryota urens* | Sur-maad | Arecaceae | 02 |
| 62 | *Neolamarckia cadamba* | Kadamb | Rubiaceae | 01 |
| 63 | *Gmelina arborea* | Sivan | Verbenaceae | 01 |
| 64 | *Nyctanthes arbor* | Paarijat | Oleaceae | 01 |
| 65 | *Anacardium occidentale* | Cashew | Anacardiaceae | 01 |
| 66 | *Eucalyptus globulus* | Eucalypt | Myrtaceae | 01 |
| 67 | *Barringtonia acutangula* | Samdraphal | Lecythidaceae | 01 |
| 68 | *Trema orientale* | Kapshi | Cannabaceae | 21 |
| 69 | *Couroupita guianensis* | Kailashpati | Lecythidaceae | 01 |
| 70 | *Millingtonia hortensis* | Kaval Nimb | Bignoniaceae | 14 |
| 71 | *Acacia auriculiformis* | Australian Babhool | Fabaceae | 01 |
| 72 | *Phyllanthus acidus* | Indian Gooseberry | Phyllanthaceae | 01 |
| 73 | *Manilkara zapota* | Chicku | Sapotaceae | 01 |
| 74 | *Phyllanthus niruri* | Stonebreaker | Phyllanthaceae | 01 |

| | | | | |
|---|---|---|---|---|
| 75 | *Morus alba* | Mulberry | Moraceae | 01 |
| 76 | *Tectona grandis* | Teak | Verbenaceae | 01 |
| 77 | *Calindra haematocephala* | Powder puff | Fabaceae | 01 |
| 78 | *Roystonea regia* | Bottle palm | Aracaceae | 02 |
| 79 | *Gliricidia sepium* | Giripushpa | Fabaceae | 08 |
| 80 | *Pterospermum acerifolium* | Muchkund | Malvaceae | 01 |
| 81 | *Nyctanthes arbor* | Paarijat | Oleaceae | 01 |
| 82 | *Sapindus mukorossi* | Ritha | Sapindaceae | 01 |
| 83 | *Macaranga peltata* | Chanda | Euphorbiaceae | 01 |
| 84 | *Pterocarpus marsupium* | Indian Kino Tree | Fabaceae | 01 |
| 85 | *Dalbergia sisso* | Shisham | Fabaceae | 01 |
| 86 | *Cassia fistula* | Bahava | Fabaceae | 02 |

# FAUNA IN ISMAIL YUSUF COLLEGE

| **Butterflies** | Beetle | Wood Pecker |
|---|---|---|
| Orange Tip | Jumping Spiders | Egret |
| Lemon Pansy | Signature Spiders | Common Mynah |
| Plain Tiger | | Common Koyal |
| Strip Tiger | **Reptiles** | Wood Pecker |
| Black Mormon | Sand Boa | Ashy Prinia |
| Great Eggfly | Cobra | Greater Caucal |
| Chocolate Pansy | Common Krait | Spotted Koyal |
| Jezebels | Rat Snake | Common Parakeet |
| Tailed J | Indian Rock Python | Rosering Parakeet |
| Common Grass Yellow | Geckos | Jungle Crow |
| Sword Tail | Chameleon | Common Crow |
| Common Crow | | |
| Common Tiger | **Amphibians** | **Mammals** |
| Common leopard | Common Indian Toad | House rat |
| Crimson Rose | Indian Bull Frog | Squirrel |
| Common Rose | | Domestic Cat |
| Danaid Eggfly | **Aves** | Dogs |
| Common Emigrant | Common Kingfisher | Hanuman Langur |
| Yellow Orange Tip | White Throated Kingfisher | |
| Psyche | Red vented Bulbul | |
| Tiny Grass Blue | Fantail | |
| Common Pierrot | Indian Magpie Robin | |
| Blue Tiger | Black Kite | |
| Common Baron | Common Sunbird | |
| | Purple Rumped Sunbird | |
| **Insects** | Coppersmith Barbet | |
| Cotton Stainer | Plain Prinia | |
| Honey Bee | Sparrow | |
| Pagoda Ants | Barn Owl And Owlets | |
| Termites | Grey Hornbill | |

# FUNGAL DIVERSITY AT ISMAIL YUSUF COLLEGE CAMPUS

























A-7 cm (L)
3 cm (B)

C-7.2cm


Mumbai, Maharashtra, India


Mumbai, Maharashtra, India


Mumbai, Maharashtra, India


Mumbai, Maharashtra, India











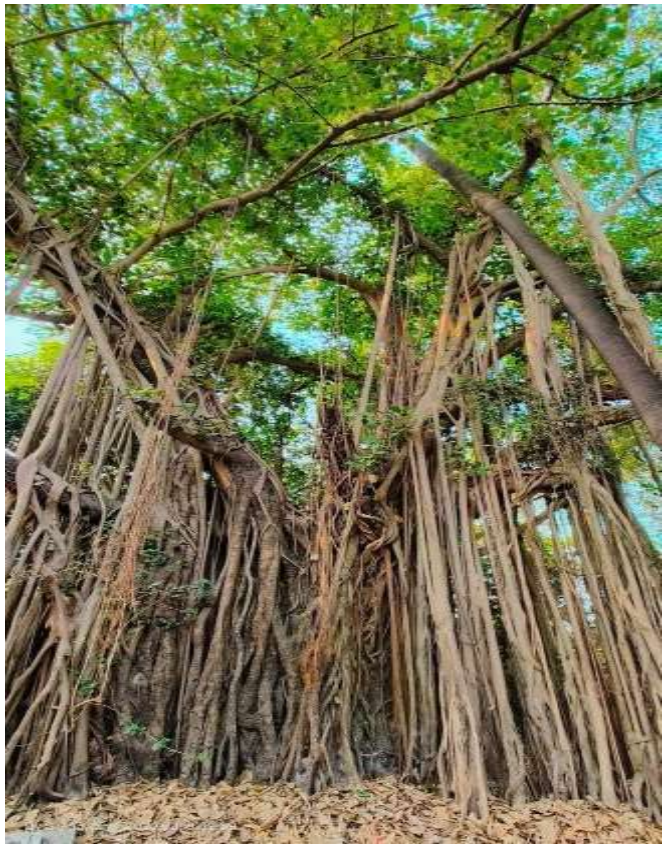


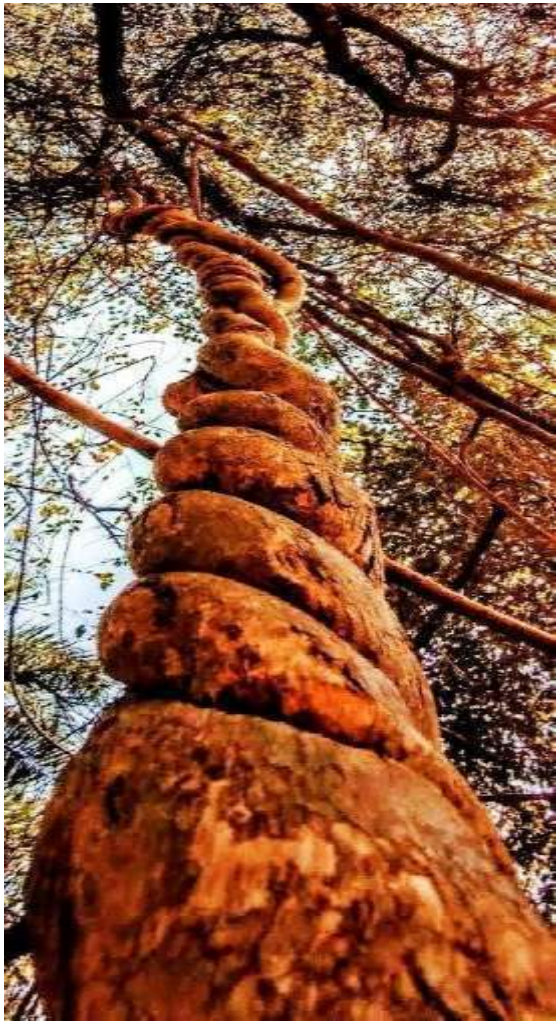


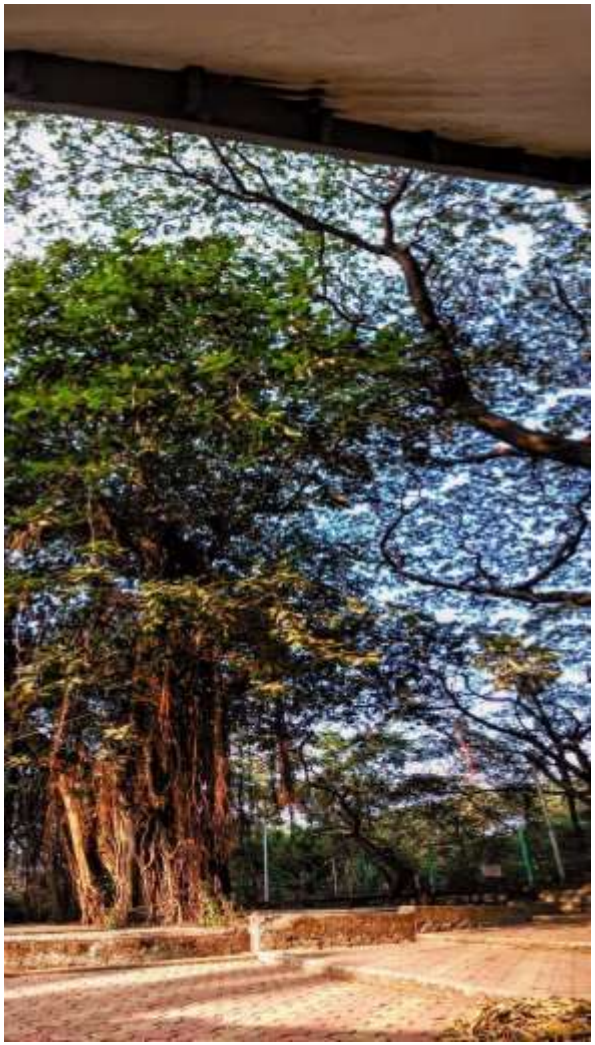





## PLANT DIVERSITY AT ISMAIL YUSUF COLLEGE CAMPUS,








S.S.Sawant


S.S.Sawant


S.S.Sawant


S.S.Sawant


S.S.Sawant


S.S.Sawant


S.S.Sawant


S.S.Sawant


S.S.Sawant


Shot on OnePlus

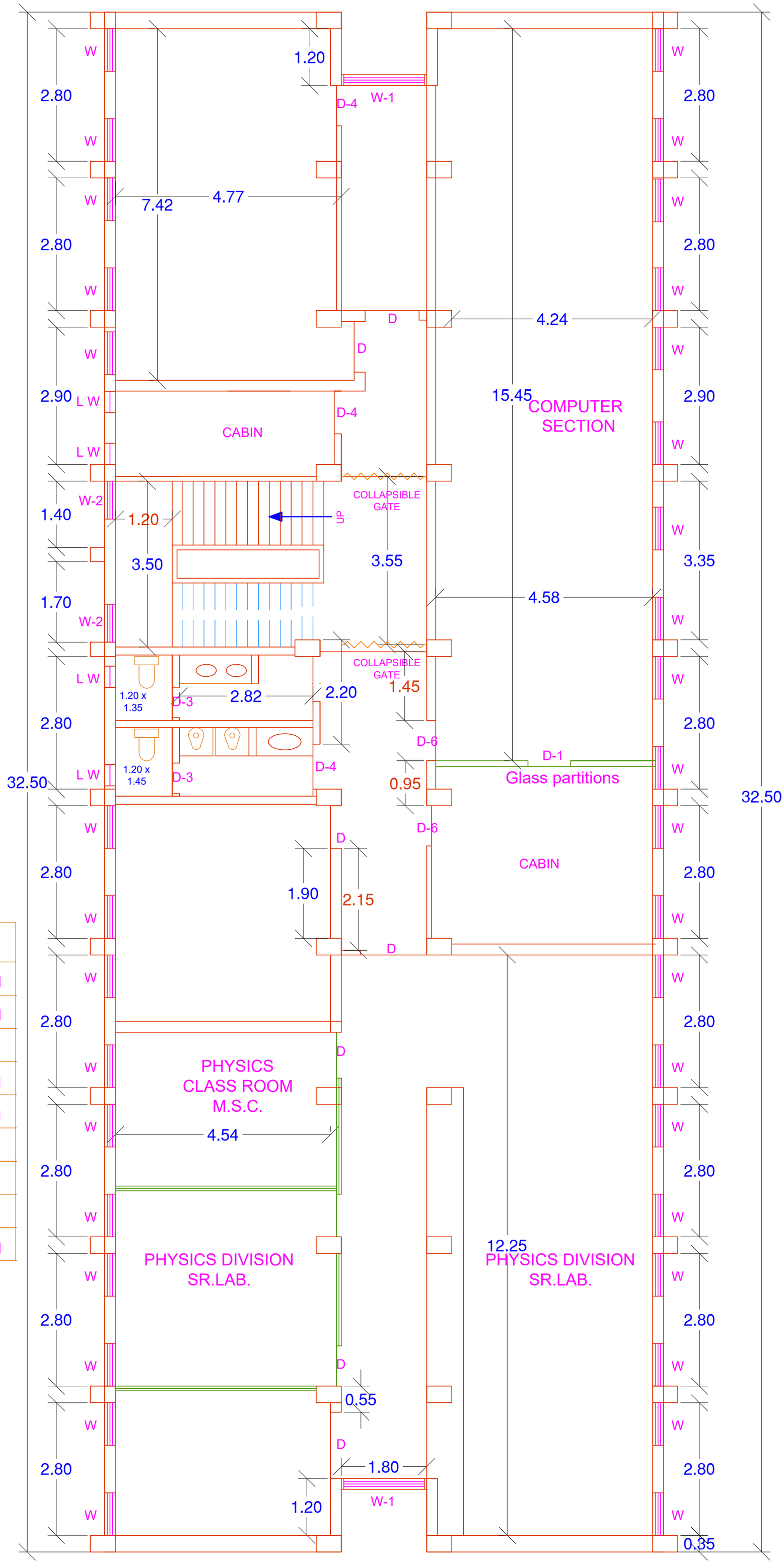

Shot on OnePlus
2023.08.21 11:35
By S.S.Sawant


S.S.Sawant


S.S.Sawant


S.S.Sawant


Google

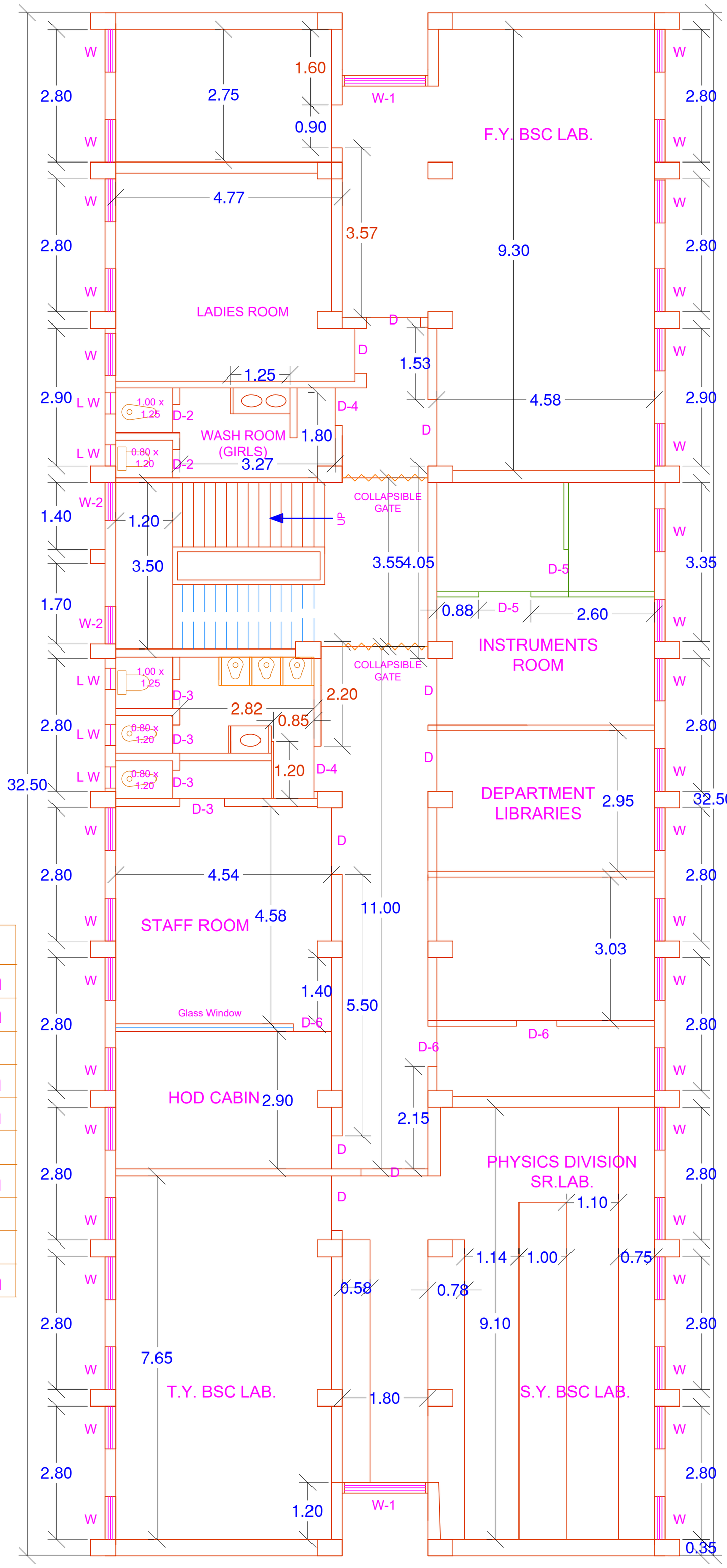



## DOORS & WINDOWS SCHEDULE SIZE

| TYPE | |
|---|---|
| D | 1.40 x 2.50 m |
| D - 1 | 1.15 x 2.50 m |
| D - 2 | 1.00 x 1.65 m |
| D - 3 | 0.65 x 1.90 m |
| D - 4 | 0.90 x 2.05 m |
| D - 5 | 1.20 x 2.25 m |
| W | 0.90 x 1.65 m |
| W - 1 | 1.70 x 1.25 m |
| L.W. | 0.50 x 0.85 m |

# 1st FLOOR PLAN

LAY OUT PLAN OF
NEW SCIENCE BLDG.(G+3)
ISMAIL YUSUF COLLEGE AT
JOGESHWARI ( E ) MUMBAI 400 0

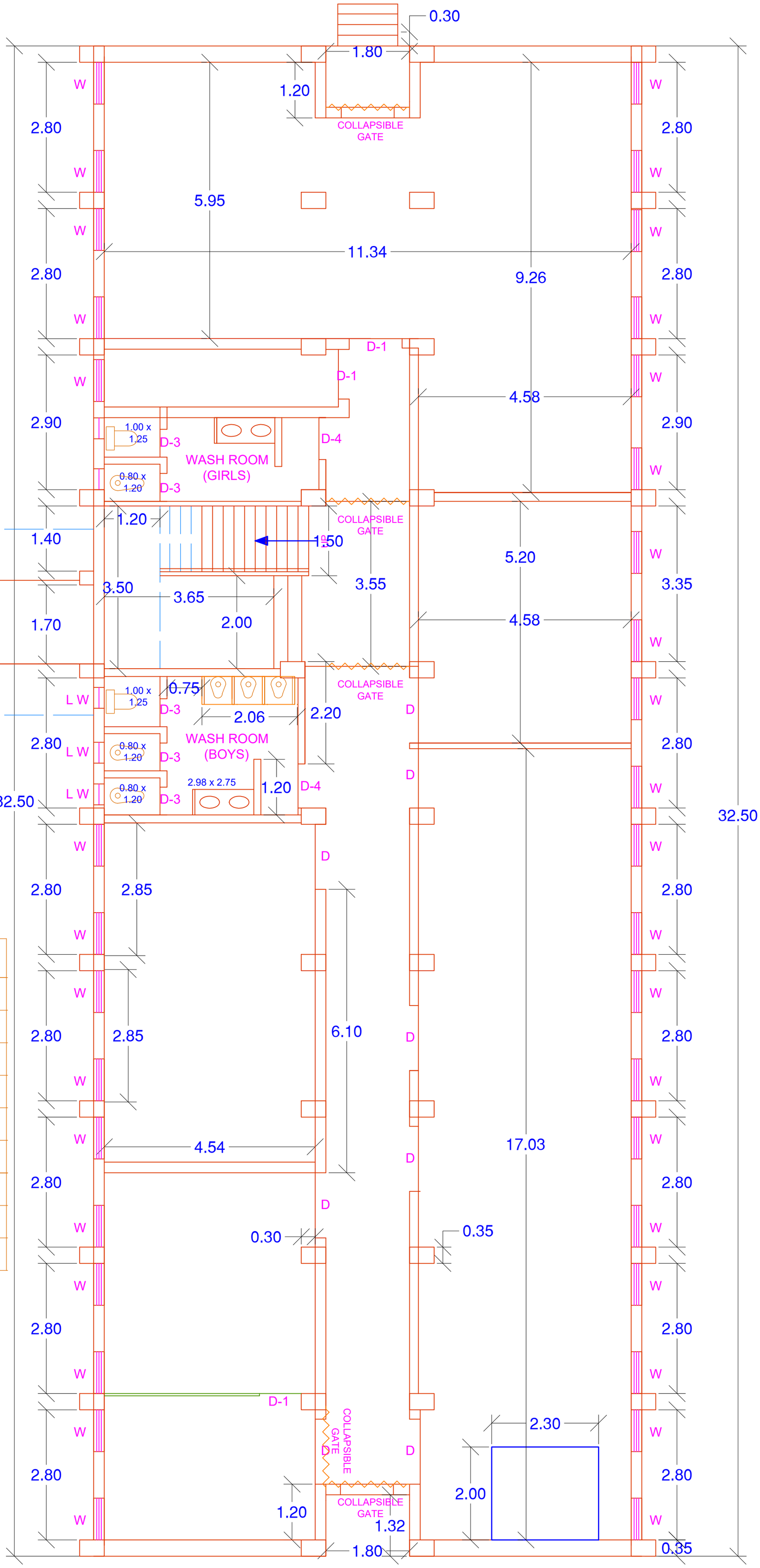



## DOORS & WINDOWS SCHEDULE SIZE

| TYPE | |
|---|---|
| D | 1.40 x 2.50 m |
| D - 1 | 1.15 x 2.50 m |
| D - 2 | 1.00 x 1.65 m |
| D - 3 | 0.65 x 1.90 m |
| D - 4 | 0.90 x 2.05 m |
| D - 5 | 1.10 x 2.00 m |
| D - 6 | 0.85 x 2.00 m |
| W | 0.90 x 1.65 m |
| W - 1 | 1.70 x 1.25 m |
| L.W. | 0.50 x 0.85 m |

# 2nd FLOOR PLAN

LAY OUT PLAN OF
NEW SCIENCE BLDG.(G+3)
ISMAIL YUSUF COLLEGE AT
JOGESHWARI ( E ) MUMBAI 400 0

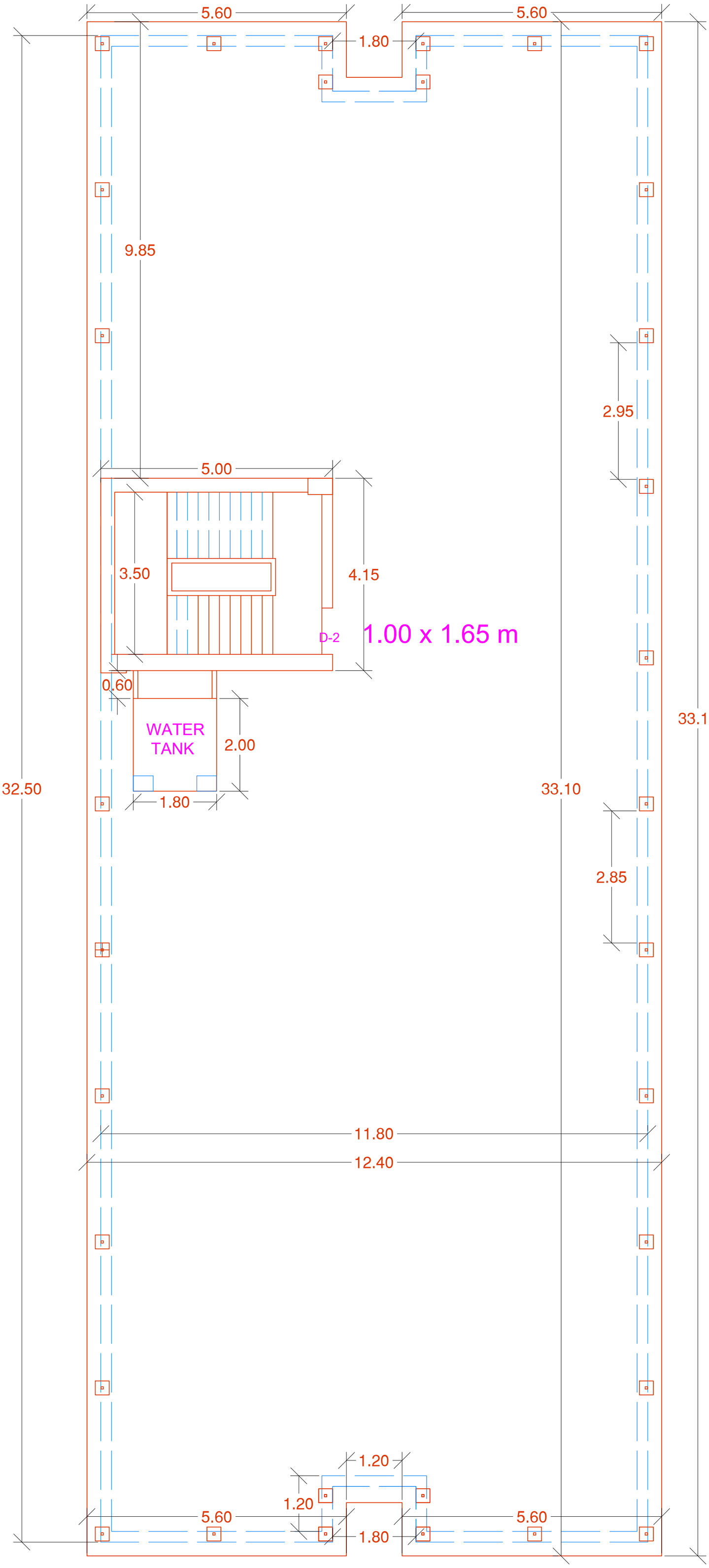



## DOORS & WINDOWS SCHEDULE SIZE

| TYPE | |
|---|---|
| D | 1.40 x 2.50 m |
| D - 1 | 1.15 x 2.50 m |
| D - 2 | 1.00 x 1.65 m |
| D - 3 | 0.65 x 1.90 m |
| D - 4 | 0.90 x 2.05 m |
| D - 5 | 1.20 x 2.25 m |
| W | 0.90 x 1.65 m |
| W - 1 | 1.70 x 1.25 m |
| L.W. | 0.50 x 0.85 m |

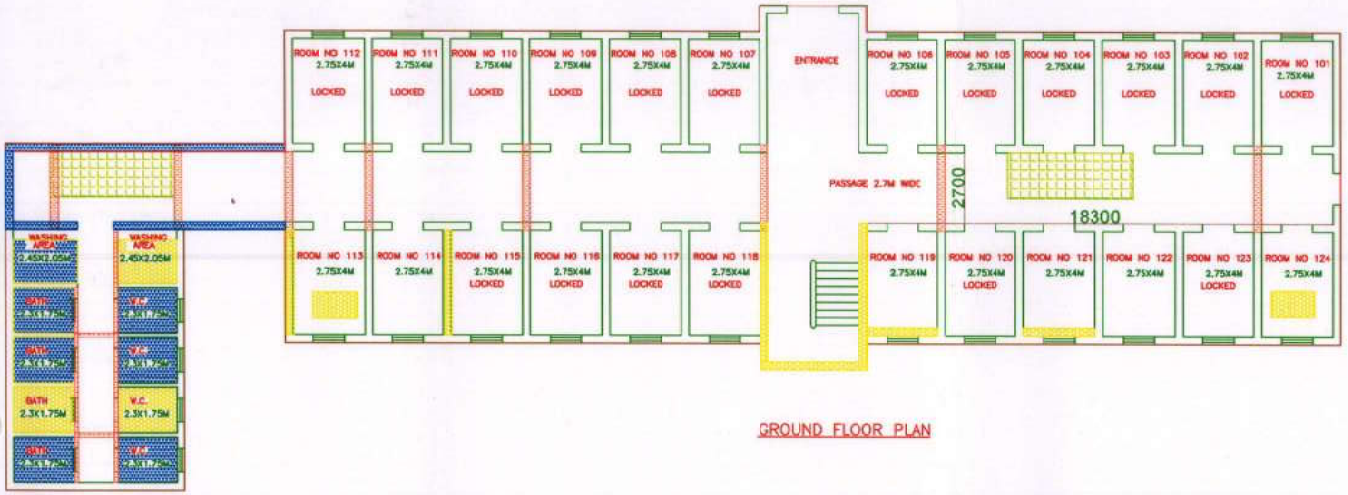
# GR. FLOOR PLAN

LAY OUT PLAN OF
NEW SCIENCE BLDG.(G+3)
ISMAIL YUSUF COLLEGE AT
JOGESHWARI ( E ) MUMBAI 400 0

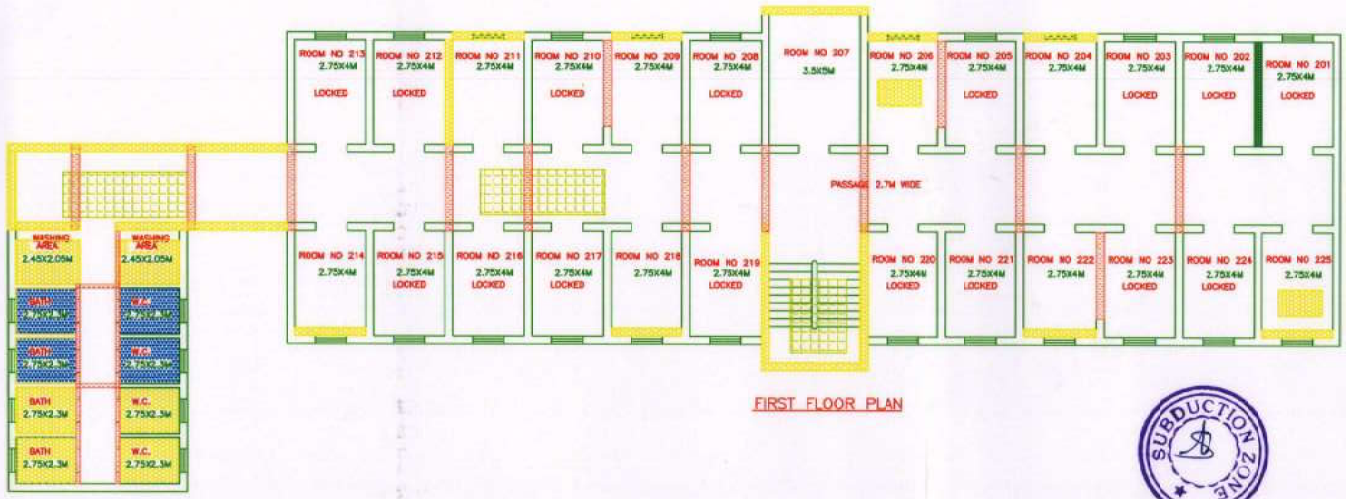



# G + 3 TERRACE

LAY OUT PLAN OF
NEW SCIENCE BLDG.(G+3)
ISMAIL YUSUF COLLEGE AT
JOGESHWARI ( E ) MUMBAI 400 0




GROUND FLOOR PLAN




FIRST FLOOR PLAN

## LEGENDS:–

- STAIRCASE STEPS DAMAGED
- UNEVEN FLOORING
- FALSE CEILING
- PARDI CRACK
- COLUMN CRACK
- SPALLING
- LINTEL CRACK
- TERMITE
- WALL CRACK
- SLAB CRACK
- LEAKEGES
- BULGING
- REINFORCEMENT VISIBLE
- DETERIORATED CHAJJAS
- LOFT CRACK
- SEEPAGE
- VEGETATION GROWTH
- DETERIORATED WATER PROOFING
- PLASTER DAMAGED
- MAJOR COLUMN & BEAM CRACK
- BEAM CRACK
- MASONARY DAMAGED
- DAMPNESS

## NOTES:–

1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED.

CLIENT
PUBLIC WORKS REGION, MUMBAI
PUBLIC WORKS CIRCLE, MUMBAI
NORTH MUMBAI PUBLIC WORKS DIVISION, ANDHERI, MUMBAI
PUBLIC WORKS SUB DIVISION, ANDHERI, MUMBAI

STRUCTURAL CONSULTANT
SUBDUCTION ZONE
CONSULTANCY SERVICES,
223, SWASTIK CHAMBERS, SION TROMBAY ROAD, CHEMBUR, MUMBAI–400071

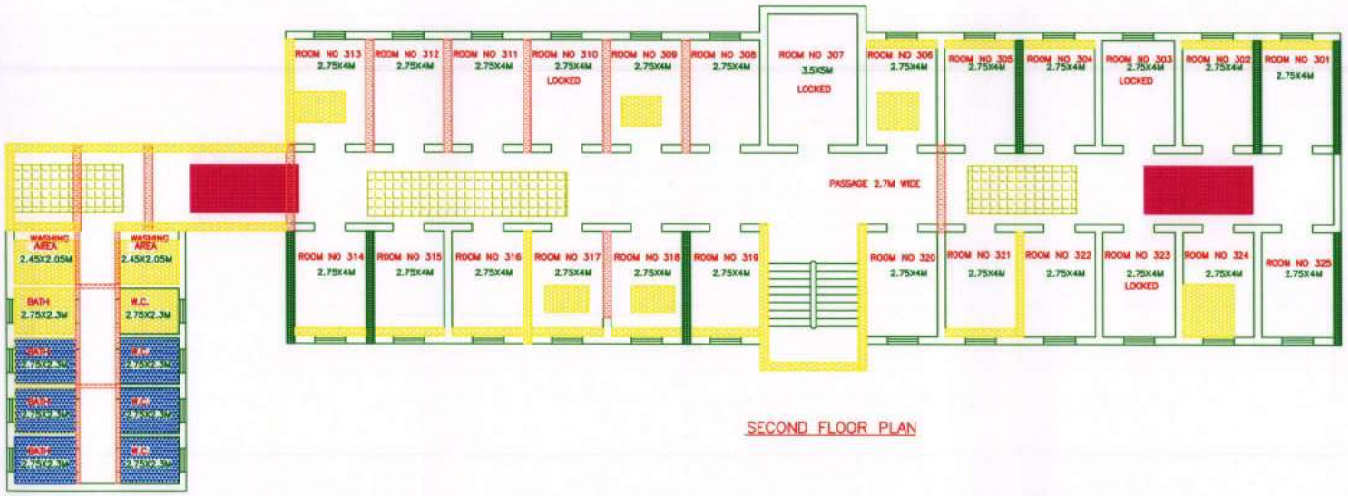
PROJECT
DISTRESS MAPPING OF BOYS HOSTEL AT ISMAIL YUSUF COLLEGE CAMPUS, JOGESHWARI, MUMBAI.

DRAWING TITLE
GROUND & FIRST FLOOR DISTRESS MAPPING PLAN OF BOYS HOSTEL

DRG. No. 337_ISMAIL_YUSUF_COLLEGE_JOGESHWARI_AUDIT_DRG_ (SHEET1 OF 2)

SCALE 1:100

| DATE | REV. | REMARK | DRAWN | CHECKED | APPROVED |
|---|---|---|---|---|---|
| 11-01-21 | 0 | DISTRESS MAPPING PLANS | PSB | | AAS |




SECOND FLOOR PLAN

## LEGENDS:–

- STAIRCASE STEPS DAMAGED
- UNEVEN FLOORING
- FALSE CEILING
- PARDI CRACK
- COLUMN CRACK
- SPALLING
- LINTEL CRACK
- TERMITE
- WALL CRACK
- SLAB CRACK
- LEAKEGES
- BULGING
- REINFORCEMENT VISIBLE
- DETERIORATED CHAJJAS
- LOFT CRACK
- SEEPAGE
- VEGETATION GROWTH
- DETERIORATED WATER PROOFING
- PLASTER DAMAGED
- MAJOR COLUMN & BEAM CRACK
- BEAM CRACK
- MASONARY DAMAGED
- DAMPNESS

## NOTES:–

1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED.

CLIENT
PUBLIC WORKS REGION, MUMBAI
PUBLIC WORKS CIRCLE, MUMBAI
NORTH MUMBAI PUBLIC WORKS DIVISION, ANDHERI, MUMBAI
PUBLIC WORKS SUB DIVISION, ANDHERI, MUMBAI

STRUCTURAL CONSULTANT
SUBDUCTION ZONE
CONSULTANCY SERVICES,
223, SWASTIK CHAMBERS, SION TROMBAY ROAD, CHEMBUR, MUMBAI–400071

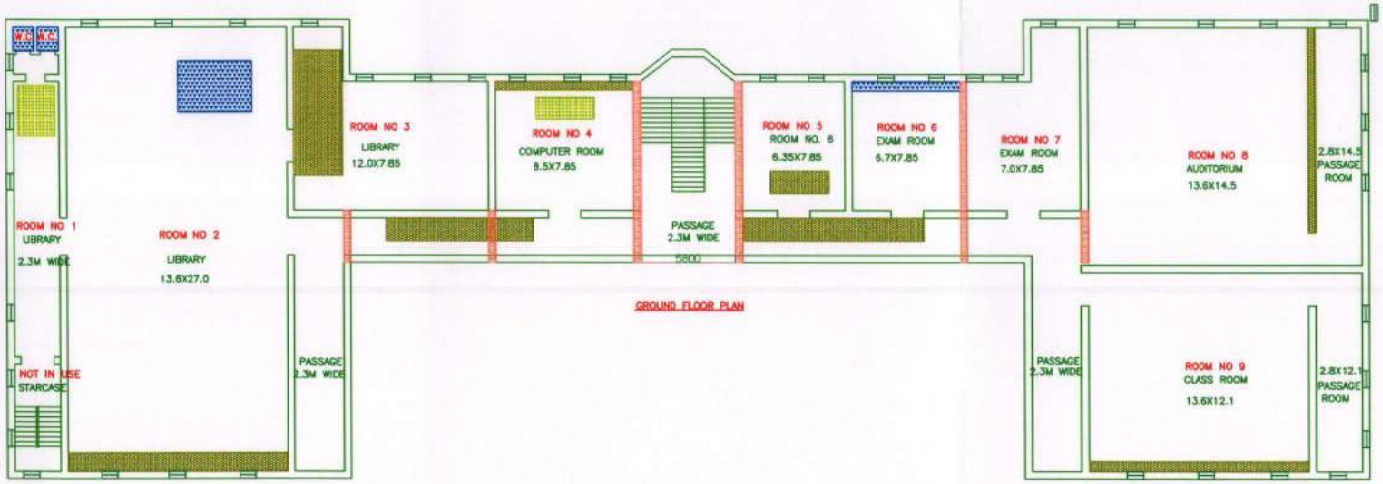
PROJECT
DISTRESS MAPPING OF BOYS HOSTEL AT ISMAIL YUSUF COLLEGE CAMPUS, JOGESHWARI, MUMBAI.

DRAWING TITLE
SECOND FLOOR DISTRESS MAPPING PLAN OF BOYS HOSTEL

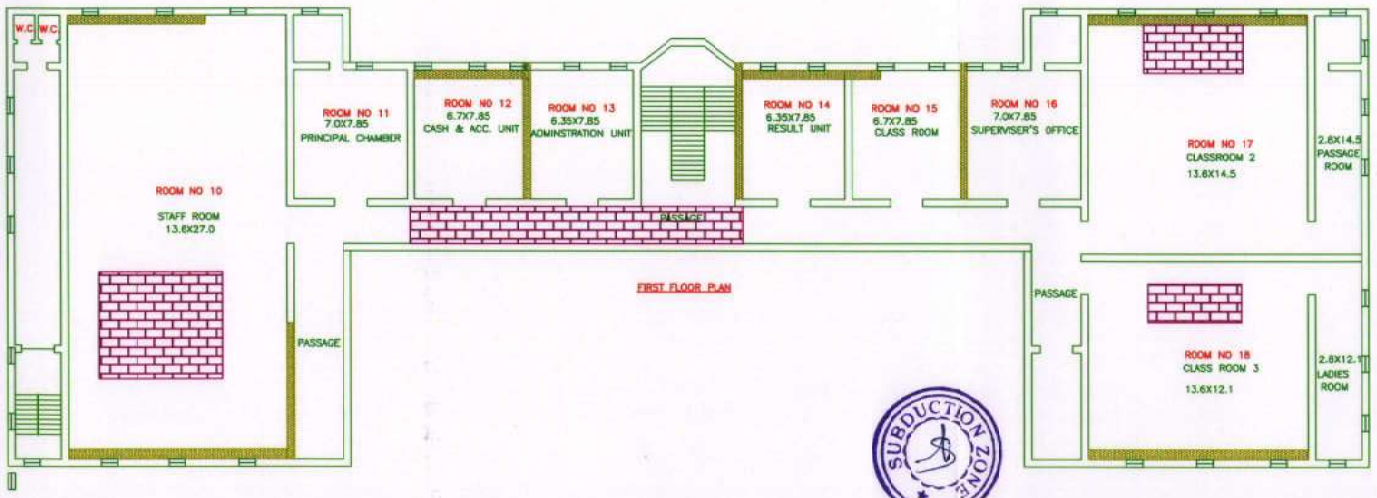
DRG. No.337_ISMAIL_YUSUF_COLLEGE_JOGESHWARI_AUDIT_DRG._1 (SHEET2 OF 2)

SCALE 1:100

| DATE | REV. | REMARK | DRAWN | CHECKED | APPROVED |
|---|---|---|---|---|---|
| 11-01-21 | 0 | DISTRESS MAPPING PLANS | PSS | | AAS |




GROUND FLOOR PLAN




FIRST FLOOR PLAN

SUBDUCTION ZONE

## LEGENDS:–

- STAIRCASE STEPS DAMAGED
- UNEVEN FLOORING
- FALSE CEILING
- PARDI CRACK
- COLUMN CRACK
- SPALLING
- LINTEL CRACK
- TERMITE
- WALL CRACK
- SLAB CRACK
- LEAKEGES
- BULGING
- REINFORCEMENT VISIBLE
- DETERIORATED CHAJJAS
- LOFT CRACK
- SEEPAGE
- VEGETATION GROWTH
- DETERIORATED WATER PROOFING
- PLASTER DAMAGED
- MAJOR COLUMN & BEAM CRACK
- BEAM CRACK
- MASONARY DAMAGED
- DAMPNESS

## NOTES:–

1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED.

CLIENT
PUBLIC WORKS REGION, MUMBAI
PUBLIC WORKS CIRCLE, MUMBAI
NORTH MUMBAI PUBLIC WORKS DIVISION, ANDHERI, MUMBAI
PUBLIC WORKS SUB DIVISION, ANDHERI, MUMBAI

STRUCTURAL CONSULTANT
SUBDUCTION ZONE
CONSULTANCY SERVICES,
223, SWASTIK CHAMBERS, SION TROMBAY ROAD, CHEMBUR, MUMBAI–400071

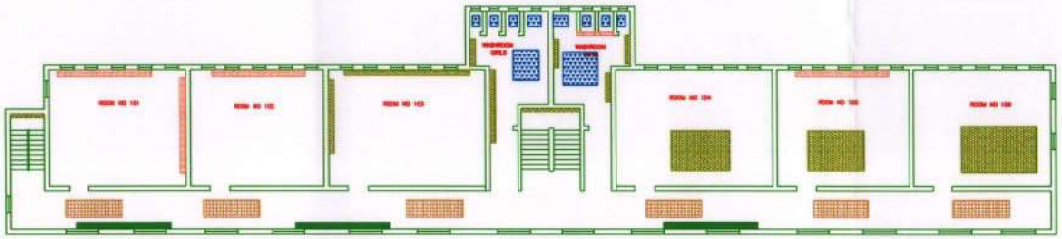
PROJECT
DISTRESS MAPPING OF MAIN BUILDING AT ISMAIL YUSUF COLLEGE CAMPUS, JOGESHWARI, MUMBAI.

DRAWING TITLE
GROUND & FIRST FLOOR DISTRESS MAPPING PLAN OF MAIN BUILDING

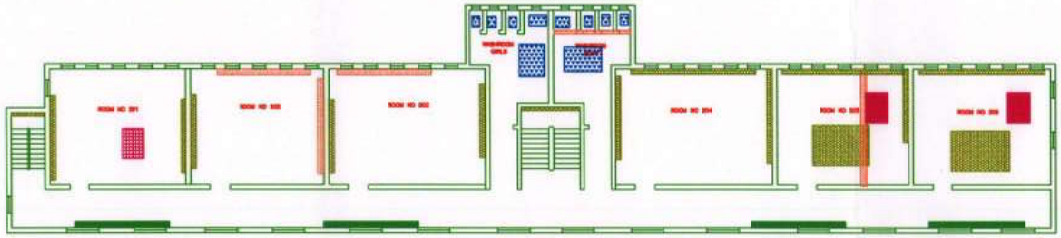
DRG. No. 337_ISMAIL_YUSUF_COLLEGE_JOGESHWARI_AUDIT_DRG_1 (SHEET 1 OF 2)

SCALE 1:100

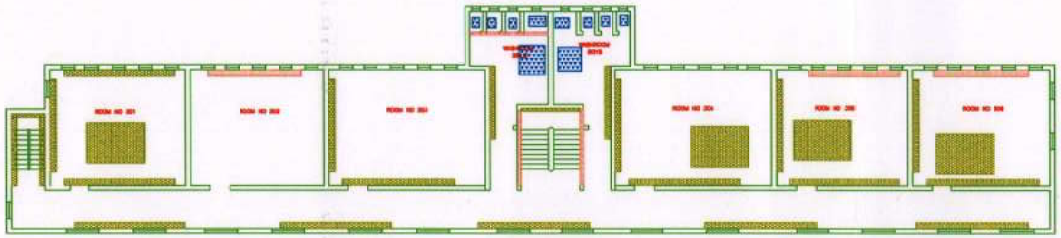
| DATE | REV. | REMARK | DRAWN | CHECKED | APPROVED |
|---|---|---|---|---|---|
| 11-01-21 | 0 | DISTRESS MAPPING PLANS | PSB | | AAS |



GROUND FLOOR PLAN



FIRST FLOOR PLAN



SECOND FLOOR PLAN

## LEGENDS:–

- STAIRCASE STEPS DAMAGED
- UNEVEN FLOORING
- FALSE CEILING
- PARDI CRACK
- COLUMN CRACK
- SPALLING
- LINTEL CRACK
- TERMITE
- WALL CRACK
- SLAB CRACK
- LEAKEGES
- BULGING
- REINFORCEMENT VISIBLE
- DETERIORATED CHAJJAS
- LOFT CRACK
- SEEPAGE
- VEGETATION GROWTH
- DETERIORATED WATER PROOFING
- PLASTER DAMAGED
- MAJOR COLUMN & BEAM CRACK
- BEAM CRACK
- MASONARY DAMAGED
- DAMPNESS

## NOTES:–

1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED.

SUBDUCTION ZONE

CLIENT
PUBLIC WORKS REGION, MUMBAI
PUBLIC WORKS CIRCLE, MUMBAI
NORTH MUMBAI PUBLIC WORKS DIVISION, ANDHERI, MUMBAI
PUBLIC WORKS SUB DIVISION, ANDHERI, MUMBAI

STRUCTURAL CONSULTANT
SUBDUCTION ZONE
CONSULTANCY SERVICES,
223, SWASTIK CHAMBERS, SION TROMBAY ROAD, CHEMBUR, MUMBAI–400071

PROJECT
DISTRESS MAPPING OF NX BUILDING AT ISMAIL YUSUF COLLEGE CAMPUS, JOGESHWARI, MUMBAI.

DRAWING TITLE
GROUND, FIRST & SECOND FLOOR DISTRESS MAPPING PLAN OF NX BUILDING

DRG. No.337_ISMAIL_YUSUF_COLLEGE_JOGESHWARI_AUDIT_DRG_1 (SHEET1 OF 4)

SCALE 1:100

| DATE | REV. | REMARK | DRAWN | CHECKED | APPROVED |
|---|---|---|---|---|---|
| 11-01-21 | 0 | DISTRESS MAPPING PLANS | PSS | | AAS |


GROUND FLOOR
(SCALE 1:225)

## DOORS & WINDOWS SCHEDULE

| TYPE | SIZE |
|---|---|
| MAIN DOOR COLLAPSIBLE GATE | 5.20 x 2.40 m |
| D | 1.50 x 2.10 m |
| D – 1 | 0.95 x 2.10 m |
| D – 2 | 1.00 x 2.35 m |
| D – 3 | 1.35 x 2.35 m |
| D – 4 | 1.35 x 2.50 m |
| D – 5 | 1.05 x 2.30 m |
| D – 6 | 0.90 x 2.30 m |
| D – 7 | 0.70 x 2.00 m |
| D – 8 | 1.20 x 2.35 m |
| D – 9 | 0.75 x 2.00 m |
| D – 10 | 1.70 x 2.30 m |
| D – 11 | 1.10 x 2.25 m |
| D – 12 | |
| W | 2.00 x 1.50 m |
| W – 1 | 4.60 x 2.15 m |
| W – 2 | 3.60 x 2.15 m |
| W – 3 | 1.45 x 1.45 m |
| W – 4 | 3.10 x 3.30 m |
| W – 5 | |
| L.W. | 0.60 x 0.90 m |
| V.L. – 1 | 1.60 x 0.40 m |
| V.L. – 2. | 2.65 x 0.40 m |

## NOTES:–

1. ALL DIMENSIONS ARE IN METERS SS UNLESS OTHERWISE STATED.

## LEGENDS:–

- STAIRCASE STEPS DAMAGED
- UNEVEN FLOORING
- FALSE CEILING
- PARDI CRACK
- COLUMN CRACK
- SPALLING
- LINTEL CRACK
- TERMITE
- WALL CRACK
- SLAB CRACK
- LEAKEGES
- BULGING
- REINFORCEMENT VISIBLE
- DETERIORATED CHAJJAS
- LOFT CRACK
- SEEPAGE
- VEGETATION GROWTH
- DETERIORATED WATER PROOFING
- PLASTER DAMAGED
- MAJOR COLUMN & BEAM CRACK
- BEAM CRACK
- MASONARY DAMAGED
- DAMPNESS
- DAMAGED ROOFING

| DATE | REV. | REMARK | DRAWN | CHECKED | APPROVED |
|---|---|---|---|---|---|
| 11-01-21 | 0 | DISTRESS MAPPING PLANS | PSS | | AAS |

CLIENT
PUBLIC WORKS REGION, MUMBAI
PUBLIC WORKS CIRCLE, MUMBAI
NORTH MUMBAI PUBLIC WORKS DIVISION, ANDHERI, MUMBAI
PUBLIC WORKS SUB DIVISION, ANDHERI, MUMBAI

STRUCTURAL CONSULTANT
SUBDUCTION ZONE
CONSULTANCY SERVICES,
223, SWASTIK CHAMBERS, SION TROMBAY ROAD, CHEMBUR, MUMBAI–400071

PROJECT
DISTRESS MAPPING OF SPORT COMPLEX AT ISMAIL YUSUF COLLEGE CAMPUS, JOGESHWARI, MUMBAI.

DRAWING TITLE
GROUND FLOOR DISTRESS MAPPING PLAN OF SPORT COMPLEX

DRG. No.337_ISMAIL_YUSUF_COLLEGE_JOGESHWARI_AUDIT_DRG_1 (SHEET 1 OF 2)

SCALE 1:100


FIRST FLOOR
(SCALE 1:225)

NOTES:-

1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED.

LEGENDS:-

- STAIRCASE STEPS DAMAGED
- UNEVEN FLOORING
- FALSE CEILING
- PARDI CRACK
- COLUMN CRACK
- SPALLING
- LINTEL CRACK
- TERMITE
- WALL CRACK
- SLAB CRACK
- LEAKEGES
- BULGING
- REINFORCEMENT VISIBLE
- DETERIORATED CHAJJAS
- LOFT CRACK
- SEEPAGE
- VEGETATION GROWTH
- DETERIORATED WATER PROOFING
- PLASTER DAMAGED
- MAJOR COLUMN & BEAM CRACK
- BEAM CRACK
- MASONARY DAMAGED
- DAMPNESS
- DAMAGED ROOFING

| DATE | REV. | REMARK | DRAWN | CHECKED | APPROVED |
|---|---|---|---|---|---|
| 11-01-21 | 0 | DISTRESS MAPPING PLANS | PSS | | AAS |

CLIENT
PUBLIC WORKS REGION, MUMBAI
PUBLIC WORKS CIRCLE, MUMBAI
NORTH MUMBAI PUBLIC WORKS DIVISION, ANDHERI, MUMBAI
PUBLIC WORKS SUB DIVISION, ANDHERI, MUMBAI

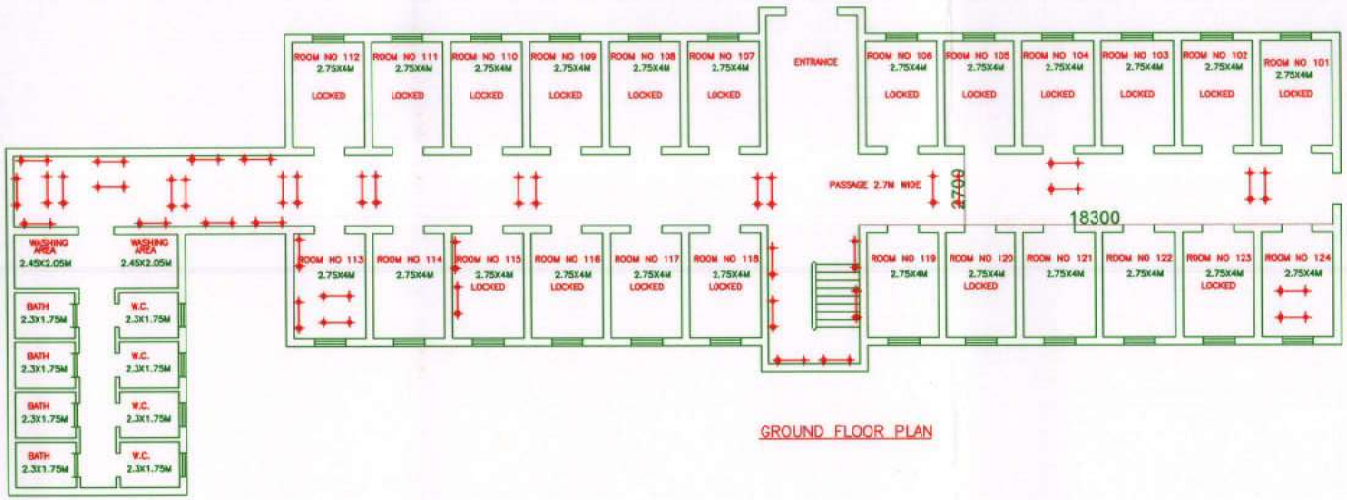
STRUCTURAL CONSULTANT
SUBDUCTION ZONE
CONSULTANCY SERVICES,
223, SWASTIK CHAMBERS, SION TROMBAY ROAD, CHEMBUR, MUMBAI-400071

PROJECT
DISTRESS MAPPING OF SPORT COMPLEX AT ISMAIL YUSUF COLLEGE CAMPUS, JOGESHWARI, MUMBAI

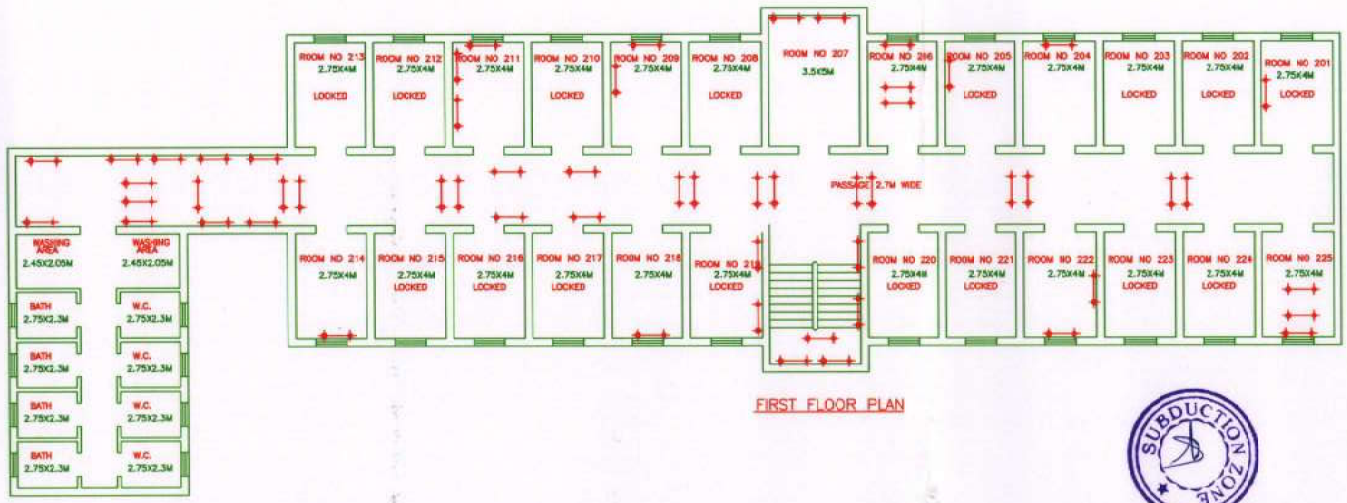
DRAWING TITLE
FIRST FLOOR DISTRESS MAPPING PLAN OF SPORT COMPLEX

DRG. No.337_ISMAIL_YUSUF_COLLEGE_JOGESHWARI_AUDIT_DRG_1 (SHEET2 OF 2)

SCALE 1:100




GROUND FLOOR PLAN




FIRST FLOOR PLAN

NOTES:-

1. ALL DIMENSIONS ARE IN IN METERS UNLESS OTHERWISE STATED.

LEGENDS:-

PROPPING

| 11-01-21 | 0 | PROPPING PLAN | PSB | | AAS |
|---|---|---|---|---|---|
| DATE | REV. | REMARK | DRAWN | CHECKED | APPROVED |

CLIENT
PUBLIC WORKS REGION, MUMBAI
PUBLIC WORKS CIRCLE, MUMBAI
NORTH MUMBAI PUBLIC WORKS DIVISION, ANDHERI, MUMBAI
PUBLIC WORKS SUB DIVISION, ANDHERI, MUMBAI

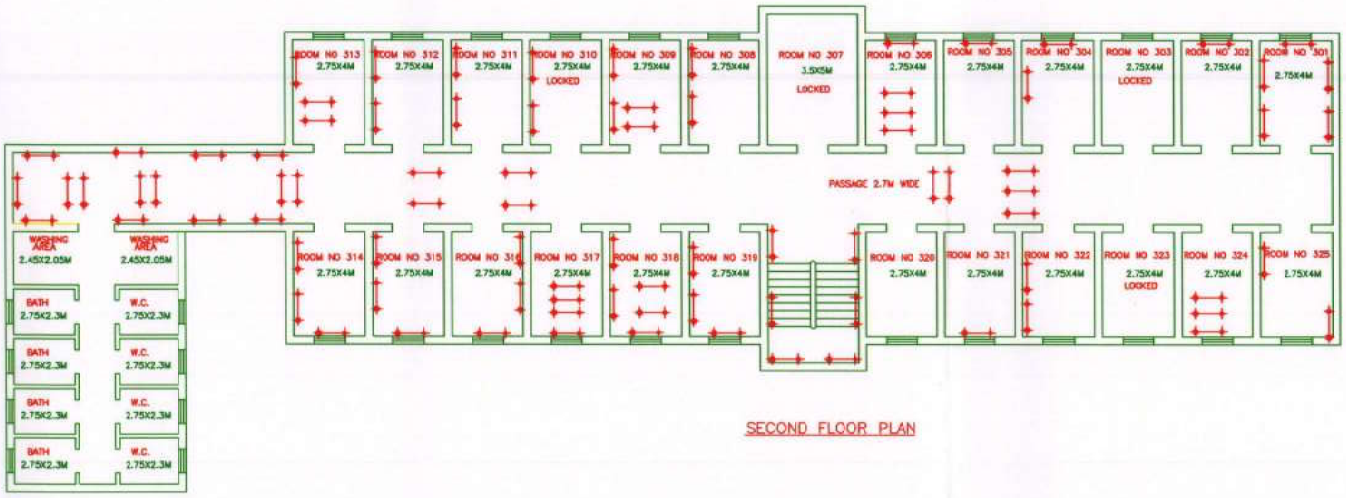
STRUCTURAL CONSULTANT
SUBDUCTION ZONE
CONSULTANCY SERVICES,
223, SWASTIK CHAMBERS, SION TROMBAY ROAD, CHEMBUR, MUMBAI-400071

PROJECT
PROPPING PLAN OF BOYS HOSTEL AT ISMAIL YUSUF COLLEGE CAMPUS, JOGESHWARI.

DRAWING TITLE
GROUND & FIRST FLOOR PROPPING PLAN OF BOYS HOSTEL

DRG. No. 337_ISMAIL_YUSUF_COLLEGE_JOGESHWARI_AUDIT_DRG_ (SHEET1 OF 2)

SCALE 1:100




SECOND FLOOR PLAN

NOTES:-

1. ALL DIMENSIONS ARE IN IN METERS UNLESS OTHERWISE STATED.

LEGENDS:-

PROPPING

SUBDUCTION ZONE

| DATE | REV. | REMARK | DRAWN | CHECKED | APPROVED |
|---|---|---|---|---|---|
| 11-01-21 | 0 | PROPPING PLAN | PSB | | AAS |

CLIENT
PUBLIC WORKS REGION, MUMBAI
PUBLIC WORKS CIRCLE, MUMBAI
NORTH MUMBAI PUBLIC WORKS DIVISION, ANDHERI, MUMBAI
PUBLIC WORKS SUB DIVISION, ANDHERI, MUMBAI

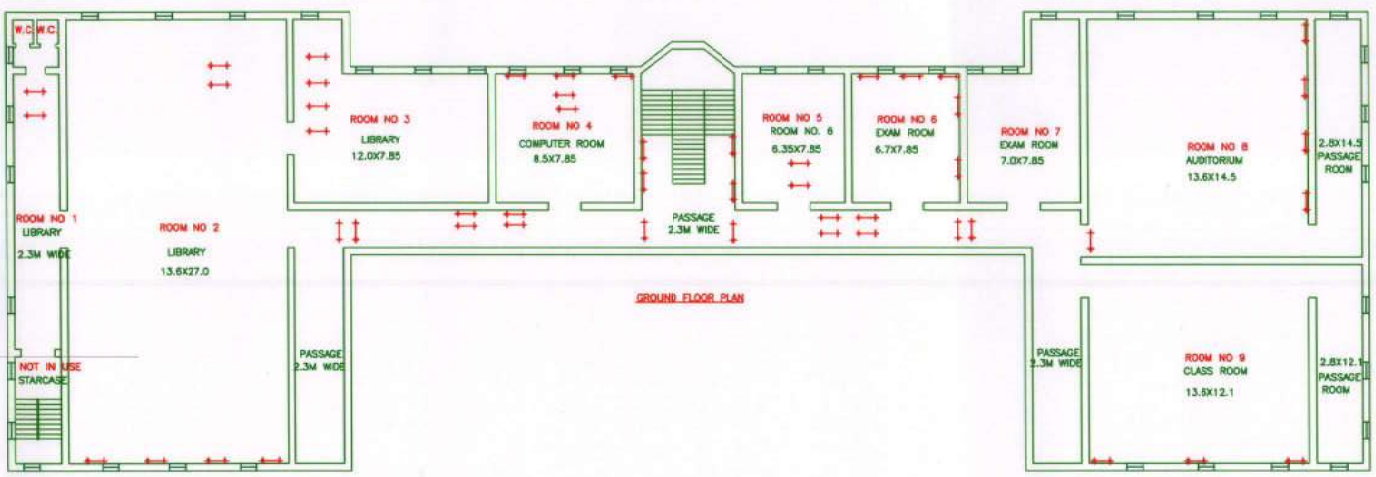
STRUCTURAL CONSULTANT
SUBDUCTION ZONE
CONSULTANCY SERVICES,
223, SWASTIK CHAMBERS, SION TROMBAY ROAD, CHEMBUR, MUMBAI-400071

PROJECT
PROPPING PLAN OF BOYS HOSTEL AT ISMAIL YUSUF COLLEGE CAMPUS, JOGESHWARI.

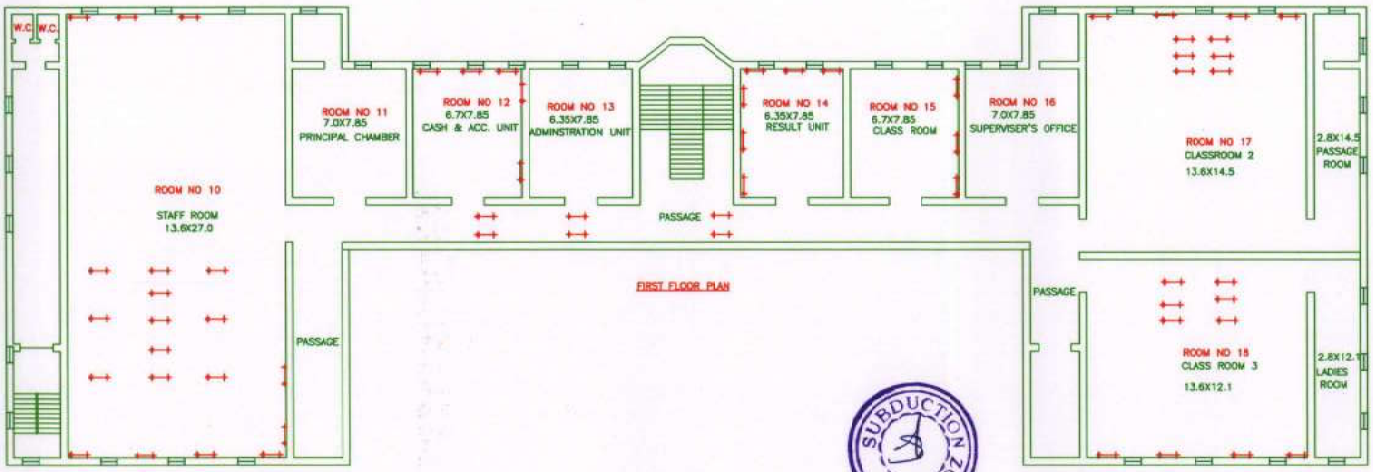
DRAWING TITLE
SECOND FLOOR PROPPING PLAN OF BOYS HOSTEL

DRG. No337_ISMAIL_YUSUF_COLLEGE_JOGESHWARI_AUDIT_DRG_1 (SHEET2 OF 2)

SCALE 1:100




GROUND FLOOR PLAN




FIRST FLOOR PLAN

SUBDUCTION ZONE

NOTES:-

1. ALL DIMENSIONS ARE IN IN METERS UNLESS OTHERWISE STATED.

LEGENDS:-

PROPPING

| DATE | REV. | REMARK | DRAWN | CHECKED | APPROVED |
|---|---|---|---|---|---|
| 11-01-21 | 0 | DISTRESS MAPPING PLANS | PSB | | AAS |

CLIENT
PUBLIC WORKS REGION, MUMBAI
PUBLIC WORKS CIRCLE, MUMBAI
NORTH MUMBAI PUBLIC WORKS DIVISION, ANDHERI, MUMBAI
PUBLIC WORKS SUB DIVISION, ANDHERI, MUMBAI

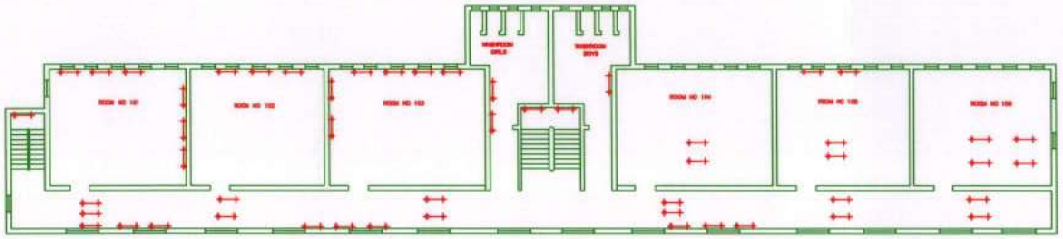
STRUCTURAL CONSULTANT
SUBDUCTION ZONE
CONSULTANCY SERVICES,
223, SWASTIK CHAMBERS, SION TROMBAY ROAD, CHEMBUR, MUMBAI-400071

PROJECT
DISTRESS MAPPING OF MAIN BUILDING AT ISMAIL YUSUF COLLEGE CAMPUS, JOGESHWARI.

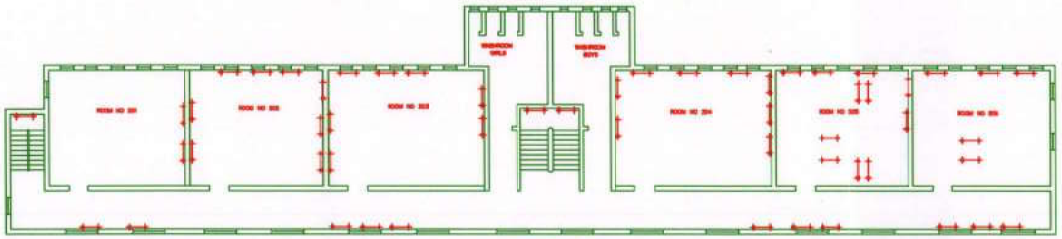
DRAWING TITLE
GROUND & FIRST FLOOR DISTRESS MAPPING PLAN OF MAIN BUILDING

DRG. No. 337_ISMAIL_YUSUF_COLLEGE_JOGESHWARI_AUDIT_DRG_1 (SHEET1 OF 1)

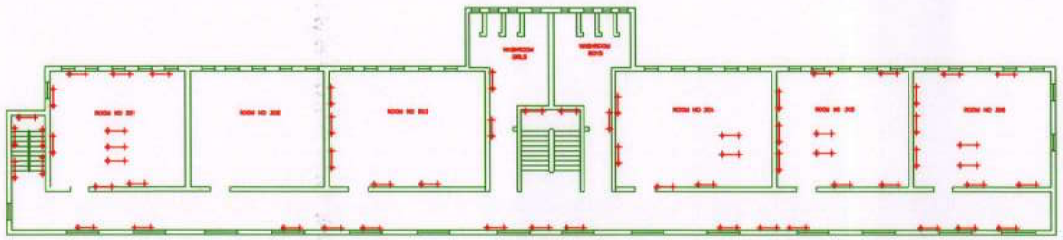
SCALE 1:100



GROUND FLOOR PLAN



FIRST FLOOR PLAN



SECOND FLOOR PLAN

NOTES:–

1. ALL DIMENSIONS ARE IN IN METERS UNLESS OTHERWISE STATED.

LEGENDS:–

PROPPING

CLIENT
PUBLIC WORKS REGION, MUMBAI
PUBLIC WORKS CIRCLE, MUMBAI
NORTH MUMBAI PUBLIC WORKS DIVISION, ANDHERI, MUMBAI
PUBLIC WORKS SUB DIVISION, ANDHERI, MUMBAI

STRUCTURAL CONSULTANT
SUBDUCTION ZONE
CONSULTANCY SERVICES,
223, SWASTIK CHAMBERS, SION TROMBAY ROAD, CHEMBUR, MUMBAI–400071

PROJECT
PROPPING PLAN OF NX BUILDING AT ISMAIL YUSUF COLLEGE CAMPUS, JOGESHWARI.

DRAWING TITLE
GROUND, FIRST & SECOND FLOOR PROPPING PLAN OF NX BUILDING

DRG. No337_ISMAIL_YUSUF_COLLEGE_JOGESHWARI_AUDIT_DRG_1 (SHEET1 OF 2)

SCALE 1:100

| DATE | REV. | REMARK | DRAWN | CHECKED | APPROVED |
|---|---|---|---|---|---|
| 11-01-21 | 0 | PROPPING PLAN | PSB | | AAS |


## GROUND FLOOR
(SCALE 1:225)

NOTES:-

1. ALL DIMENSIONS ARE IN IN METERS UNLESS OTHERWISE STATED.

LEGENDS:-

PROPPING

| DATE | REV. | REMARK | DRAWN | CHECKED | APPROVED |
|---|---|---|---|---|---|
| 11-01-21 | 0 | PROPPING PLAN | PSS | | AAS |

CLIENT
PUBLIC WORKS REGION, MUMBAI
PUBLIC WORKS CIRCLE, MUMBAI
NORTH MUMBAI PUBLIC WORKS DIVISION, ANDHERI, MUMBAI
PUBLIC WORKS SUB DIVISION, ANDHERI, MUMBAI

STRUCTURAL CONSULTANT
SUBDUCTION ZONE
CONSULTANCY SERVICES,
223, SWASTIK CHAMBERS, SION TROMBAY ROAD, CHEMBUR, MUMBAI-400071

PROJECT
PROPPING PLAN OF SPORT COMPLEX AT ISMAIL YUSUF COLLEGE CAMPUS, JOGESHWARI, MUMBAI.

DRAWING TITLE
GROUND FLOOR PROPPING PLAN OF SPORT COMPLEX

DRG. No.337_ISMAIL_YUSUF_COLLEGE_JOGESHWARI_AUDIT_DRG_2 (SHEET1 OF 2)

SCALE 1:100


FIRST FLOOR
(SCALE 1:225)

NOTES:-

1. ALL DIMENSIONS ARE IN IN METERS UNLESS OTHERWISE STATED.

LEGENDS:-

PROPPING

CLIENT
PUBLIC WORKS REGION, MUMBAI
PUBLIC WORKS CIRCLE, MUMBAI
NORTH MUMBAI PUBLIC WORKS DIVISION, ANDHERI, MUMBAI
PUBLIC WORKS SUB DIVISION, ANDHERI, MUMBAI

STRUCTURAL CONSULTANT
SUBDUCTION ZONE
CONSULTANCY SERVICES,
223, SWASTIK CHAMBERS, SION TROMBAY ROAD, CHEMBUR, MUMBAI-400071

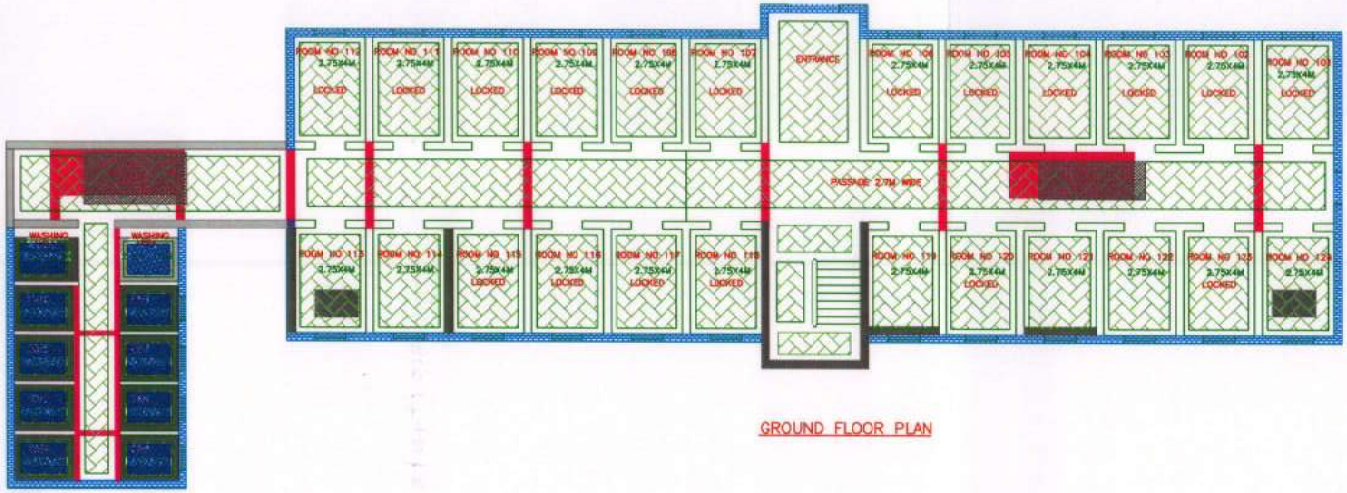
PROJECT
PROPPING PLAN OF SPORT COMPLEX AT ISMAIL YUSUF COLLEGE CAMPUS, JOGESHWARI, MUMBAI.

DRAWING TITLE
FIRST FLOOR PROPPING PLAN OF SPORT COMPEX

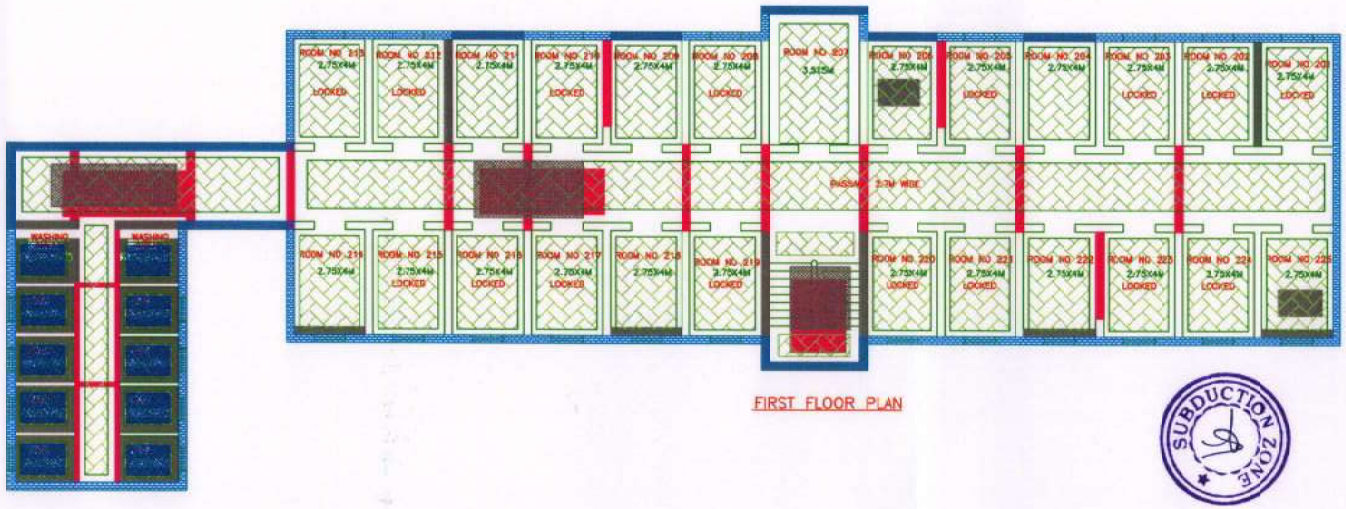
DRG. No.337_ISMAIL_YUSUF_COLLEGE_JOGESHWARI_AUDIT_DRG_2 (SHEET2 OF 2)

SCALE 1:100

| DATE | REV. | REMARK | DRAWN | CHECKED | APPROVED |
|---|---|---|---|---|---|
| 11-01-21 | 0 | PROPPING PLAN | PSS | | AAS |




GROUND FLOOR PLAN




FIRST FLOOR PLAN

NOTES:-

1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED.

LEGENDS:-

- EXTERNAL PLASTER
- PLASTER
- JACKATING
- ANTI-TERMITE
- MICRO CONCRETING
- PMM
- FRP CHAJJA
- WATER PROOFING
- NEW BRICKWORK
- STEEL RAILING
- NEW FLOORING

CLIENT
PUBLIC WORKS REGION, MUMBAI
PUBLIC WORKS CIRCLE, MUMBAI
NORTH MUMBAI PUBLIC WORKS DIVISION, ANDHERI, MUMBAI
PUBLIC WORKS SUB DIVISION, ANDHERI, MUMBAI

STRUCTURAL CONSULTANT
SUBDUCTION ZONE
CONSULTANCY SERVICES,
223, SWASTIK CHAMBERS, SION TROMBAY ROAD, CHEMBUR, MUMBAI-400071

PROJECT
REMEDIAL MEASURE OF BOYS HOSTEL AT ISMAIL YUSUF COLLEGE CAMPUS, JOGESHWARI, MUMBAI.

DRAWING TITLE
GROUND & FIRST FLOOR REMEDIAL MEASURE PLAN OF BOYS HOSTEL

DRG. No. 337_ISMAIL_YUSUF_COLLEGE_JOGESHWARI_AUDIT_DRG_3 (SHEET1 OF 2)

SCALE 1:100

| DATE | REV. | REMARK | DRAWN | CHECKED | APPROVED |
|---|---|---|---|---|---|
| 11-01-21 | 0 | REMEDIAL MEASURE | PSB | | AAS |


SECOND FLOOR PLAN

NOTES:-

1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED.

LEGENDS:-

- EXTERNAL PLASTER
- PLASTER
- JACKATING
- ANTI-TERMITE
- MICRO CONCRETING
- PMM
- FRP CHAJJA
- WATER PROOFING
- NEW BRICKWORK
- STEEL RAILING
- NEW FLOORING

| DATE | REV. | REMARK | DRAWN | CHECKED | APPROVED |
|---|---|---|---|---|---|
| 11-01-21 | 0 | REMEDIAL MEASURE | PSB | | AAS |

CLIENT
PUBLIC WORKS REGION, MUMBAI
PUBLIC WORKS CIRCLE, MUMBAI
NORTH MUMBAI PUBLIC WORKS DIVISION, ANDHERI, MUMBAI
PUBLIC WORKS SUB DIVISION, ANDHERI, MUMBAI

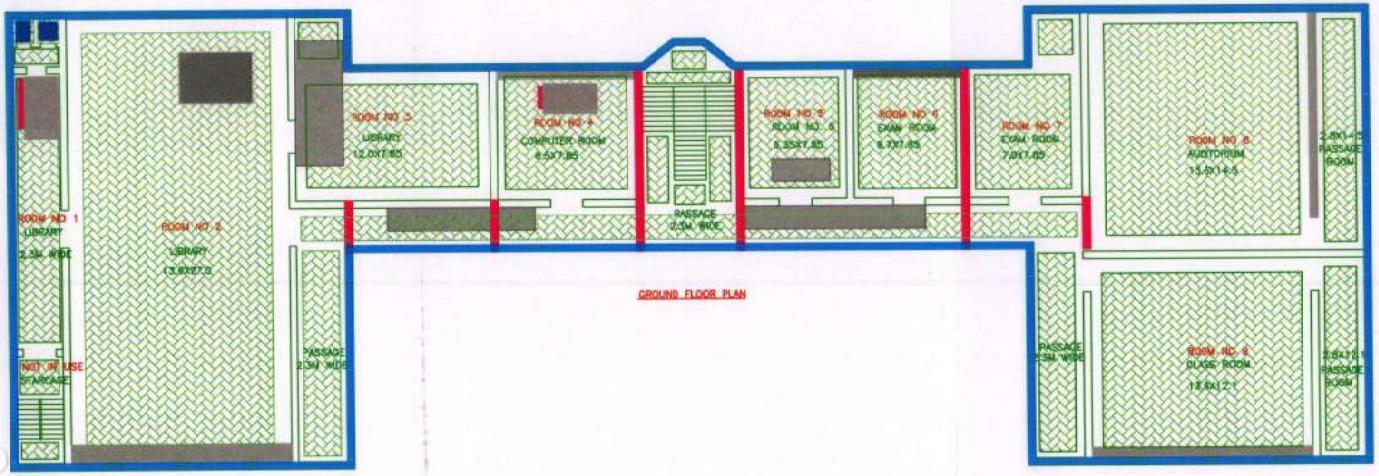
STRUCTURAL CONSULTANT
SUBDUCTION ZONE
CONSULTANCY SERVICES,
223, SWASTIK CHAMBERS, SION TROMBAY ROAD, CHEMBUR, MUMBAI-400071

PROJECT
REMEDIAL MEASURE OF BOYS HOSTEL AT ISMAIL YUSUF COLLEGE CAMPUS, JOGESHWARI.

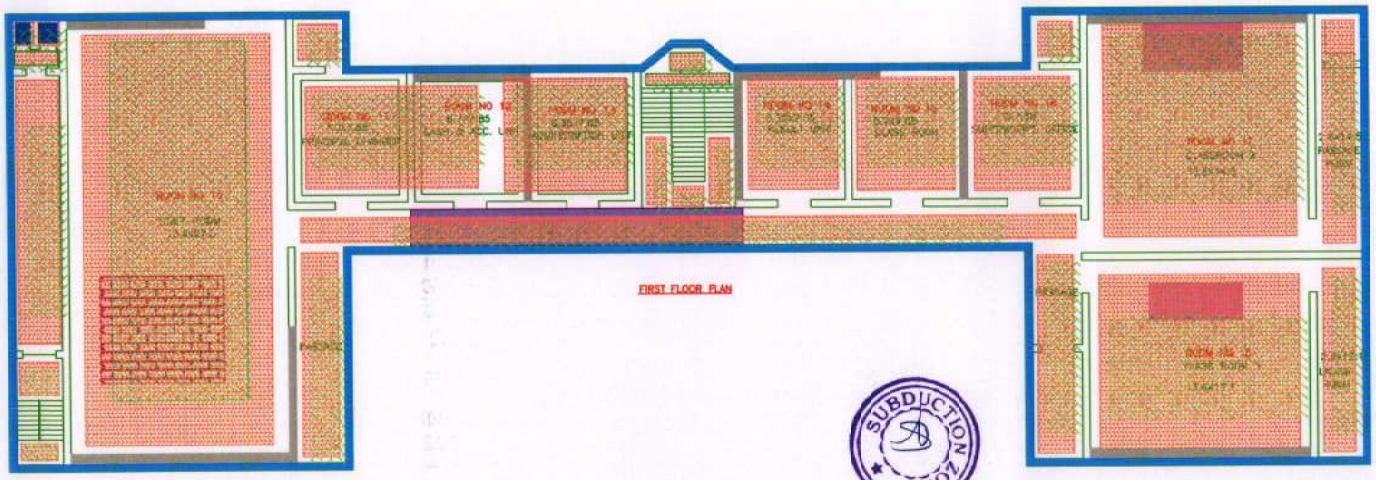
DRAWING TITLE
SECOND FLOOR REMEDIAL MEASURE PLAN OF BOYS HOSTEL

DRG. No.337_ISMAIL_YUSUF_COLLEGE_JOGESHWARI_AUDIT_DRG_3 (SHEET2 OF 2)

SCALE 1:100




GROUND FLOOR PLAN




FIRST FLOOR PLAN

NOTES:-

1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED.

LEGENDS:-

- EXTERNAL PLASTER
- PLASTER
- JACKATING
- ANTI-TERMITE
- MICRO CONCRETING
- PMM
- FRP CHAJJA
- WATER PROOFING
- NEW BRICKWORK
- NEW ROOFING
- NEW FLOORING

SUBDUCTION ZONE

| DATE | REV. | REMARK | DRAWN | CHECKED | APPROVED |
|---|---|---|---|---|---|
| 11-01-21 | 0 | REMEDIAL MEASURE | PS3 | | AAS |

CLIENT
PUBLIC WORKS REGION, MUMBAI
PUBLIC WORKS CIRCLE, MUMBAI
NORTH MUMBAI PUBLIC WORKS DIVISION, ANDHERI, MUMBAI
PUBLIC WORKS SUB DIVISION, ANDHERI, MUMBAI

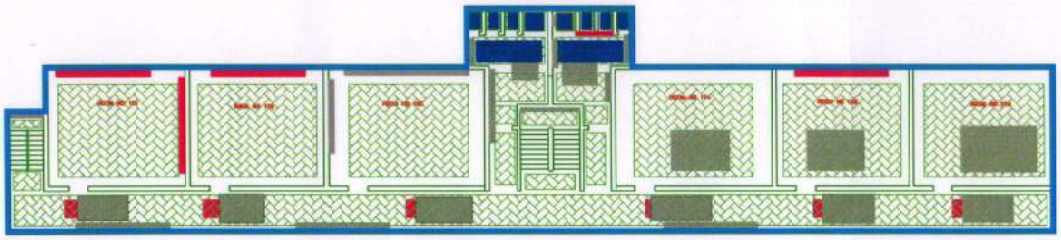
STRUCTURAL CONSULTANT
SUBDUCTION ZONE
CONSULTANCY SERVICES,
223, SWASTIK CHAMBERS, SION TROMBAY ROAD, CHEMBUR, MUMBAI-400071

PROJECT
REMEDIAL MEASURE OF MAIN BUILDING AT ISMAIL YUSUF COLLEGE CAMPUS, JOGESHWARI, MUMBAI.

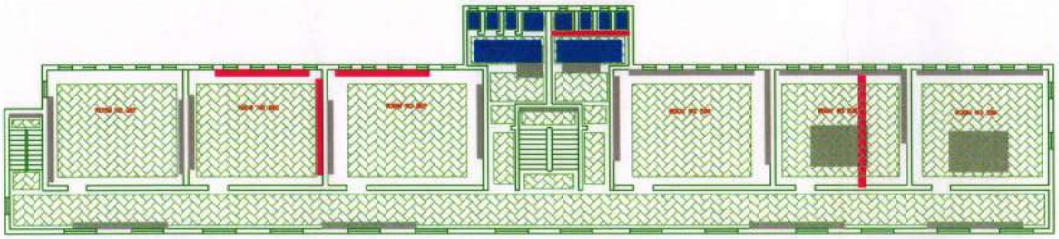
DRAWING TITLE
GROUND & FIRST FLOOR REMEDIAL MEASURE PLAN OF MAIN BUILDING

DRG. No. 837_ISMAIL_YUSUF_COLLEGE_JOGESHWARI_AUDIT_DRG_3 (SHEET1 OF 1)

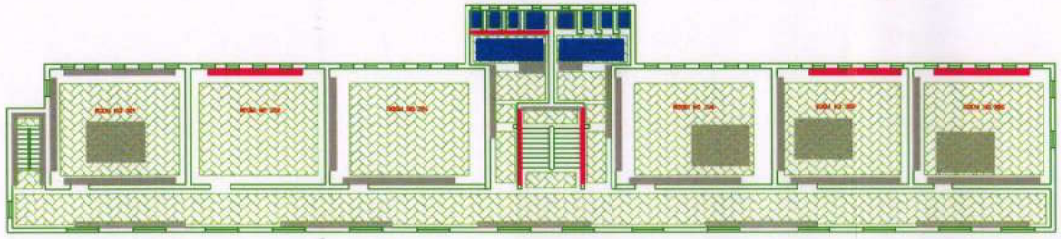
SCALE 1:100



GROUND FLOOR PLAN



FIRST FLOOR PLAN



SECOND FLOOR PLAN

NOTES:-

1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED.

LEGENDS:-

- EXTERNAL PLASTER
- PLASTER
- JACKATING
- ANTI-TERMITE
- MICRO CONCRETING
- PMM
- FRP CHAJJA
- WATER PROOFING
- NEW BRICKWORK
- STEEL RAILING
- NEW FLOORING

CLIENT
PUBLIC WORKS REGION, MUMBAI
PUBLIC WORKS CIRCLE, MUMBAI
NORTH MUMBAI PUBLIC WORKS DIVISION, ANDHERI, MUMBAI
PUBLIC WORKS SUB DIVISION, ANDHERI, MUMBAI

STRUCTURAL CONSULTANT
SUBDUCTION ZONE CONSULTANCY SERVICES,
223, SWASTIK CHAMBERS, SION TROMBAY ROAD, CHEMBUR, MUMBAI-400071

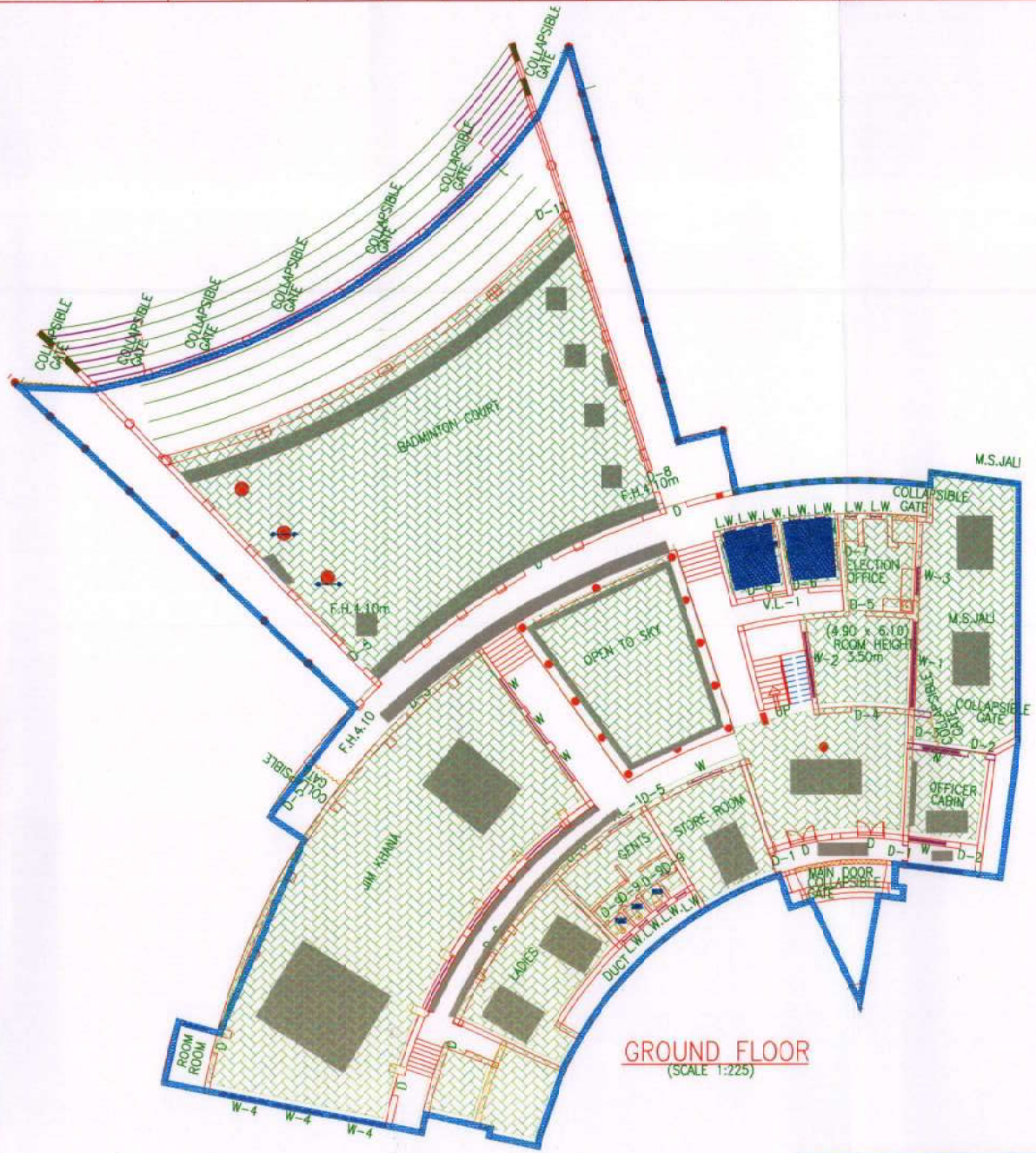
PROJECT
REMEDIAL MEASURE OF NX BUILDING AT ISMAIL YUSUF COLLEGE CAMPUS, JOGESHWARI, MUMBAI.

DRAWING TITLE
GROUND, FIRST & SECOND FLOOR REMEDIAL MEASURE PLAN OF NX BUILDING

DRG. No.337_ISMAIL_YUSUF_COLLEGE_JOGESHWARI_AUDIT_DRG_3 (SHEET1 OF 1)

SCALE 1:100

| DATE | REV. | REMARK | DRAWN | CHECKED | APPROVED |
|---|---|---|---|---|---|
| | 0 | REMEDIAL MEASURE | PSB | | AAS |




GROUND FLOOR
(SCALE 1:225)

NOTES:-

1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED.

LEGENDS:-

| |
|---|
| EXTERNAL PLASTER |
| PLASTER |
| JACKATING |
| ANTI-TERMITE |
| MICRO CONCRETING |
| PMM |
| FRP CHAJJA |
| WATER PROOFING |
| NEW BRICKWORK |
| STEEL RAILING |
| NEW FLOORING |

| DATE | REV. | REMARK | DRAWN | CHECKED | APPROVED |
|---|---|---|---|---|---|
| 11-01-21 | 0 | REMEDIAL MEASURE | PSS | | AAS |

CLIENT
PUBLIC WORKS REGION, MUMBAI
PUBLIC WORKS CIRCLE, MUMBAI
NORTH MUMBAI PUBLIC WORKS DIVISION, ANDHERI, MUMBAI
PUBLIC WORKS SUB DIVISION, ANDHERI, MUMBAI

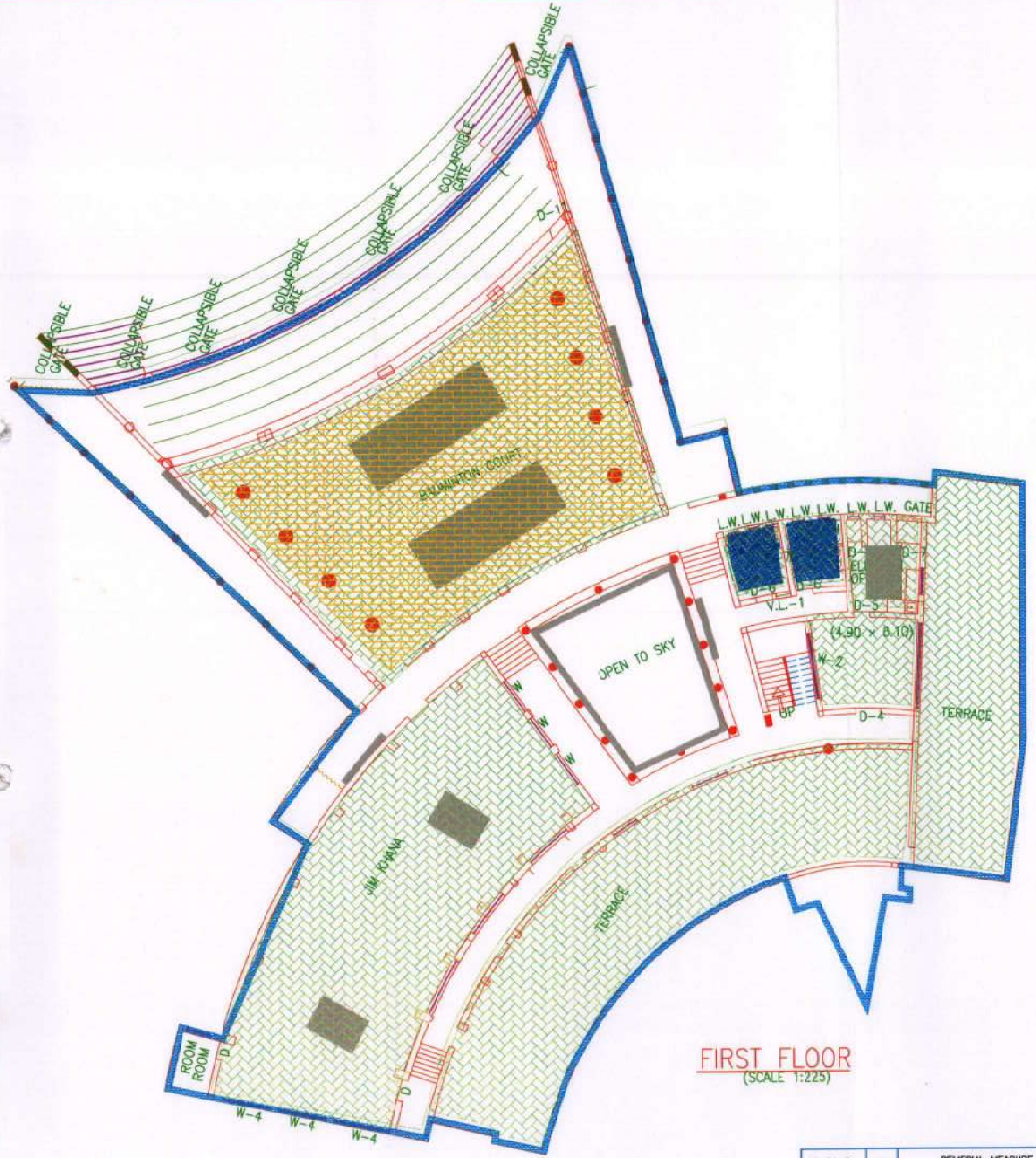
STRUCTURAL CONSULTANT
SUBDUCTION ZONE
CONSULTANCY SERVICES,
223, SWASTIK CHAMBERS, SION TROMBAY ROAD, CHEMBUR, MUMBAI-400071

PROJECT
REMEDIAL MEASURE OF SPORT COMPLEX AT ISMAIL YUSUF COLLEGE CAMPUS, JOGESHWARI, MUMBAI.

DRAWING TITLE
GROUND FLOOR REMEDIAL MEASURE PLAN OF SPORT COMPLEX

DRG. No.337_ISMAIL_YUSUF_COLLEGE_JOGESHWARI_AUDIT_DRG_3 (SHEET1 OF 2)

SCALE 1:100




FIRST FLOOR
(SCALE 1:225)

NOTES:-

1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED.

LEGENDS:-

- EXTERNAL PLASTER
- PLASTER
- JACKATING
- ANTI-TERMITE
- MICRO CONCRETING
- PMM
- FRP CHAJJA
- WATER PROOFING
- NEW BRICKWORK
- STEEL RAILING
- NEW FLOORING

SUBDUCTION ZONE

| DATE | REV. | REMARK | DRAWN | CHECKED | APPROVED |
|---|---|---|---|---|---|
| 11-01-21 | 0 | REMEDIAL MEASURE | PSS | | AAS |

CLIENT
PUBLIC WORKS REGION, MUMBAI
PUBLIC WORKS CIRCLE, MUMBAI
NORTH MUMBAI PUBLIC WORKS DIVISION, ANDHERI, MUMBAI
PUBLIC WORKS SUB DIVISION, ANDHERI, MUMBAI

STRUCTURAL CONSULTANT
SUBDUCTION ZONE
CONSULTANCY SERVICES,
223, SWASTIK CHAMBERS, SION TROMBAY ROAD, CHEMBUR, MUMBAI-400071

PROJECT
REMEDIAL MEASURE OF SPORT COMPLEX AT ISMAIL YUSUF COLLEGE CAMPUS, JOGESHWARI, MUMBAI.

DRAWING TITLE
FIRST FLOOR REMEDIAL MEASURE PLAN OF SPORT COMPLEX

DRG. No 337_ISMAIL_YUSUF_COLLEGE_JOGESHWARI_AUDIT_DRG_3 (SHEET2 OF 2)

SCALE 1:100