



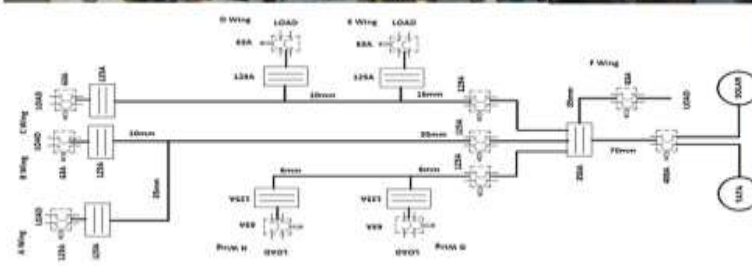
## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

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

Children welfare centre's college of law,  
Malad, Mumbai 400064.



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,



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**Detailed Report**  
**Energy-Green-Environment Audit**

=====

**Assessment of Period**  
**2022-2024**

=====

CHILDREN WELFARE CENTRE'S COLLEGE OF LAW

=====

VALNAI VILLAGE, MARVE ROAD,  
ORLEM BAWDI STOP,  
MALAD (WEST), MUMBAI-400064

=====

**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

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Followed by Annexures:

1. Infrastructure and Green Approach of Institute

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

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### **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

Principal	Dr. Anant N. Kalse
Team Member, Teaching	Prof. Simran Rane
Team Member, Teaching	Prof. Rutuja Shivalkar
Team Member, Non-Teaching	Mr. Rohit Karande
Team Member, Non-Teaching	Mr. Rajesh Ghadi
Team Member, Student	Mr. Shivam Tyagi
Team Member, Student	Mr. Jeet Dikholkar
Team Member, Student	Mr. Tanmay Adsul
Team Member, Student	Mr. Nikhil Anand
Team Member, Electricity	Mr. Kapil
Team Member, Pulmbing	Mr. Roshan
Team Member, Gardening	Mr. Patiram

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



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### 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:** CHILDREN WELFARE CENTRE'S COLLEGE OF LAW

**Registration Number:** Bom/322/1981 G.B.B.S.D.

**Address:** VALNAI VILLAGE, MARVE ROAD, MALAD (WEST), MUMBAI-400064

**Contact Person:** Ms. Simran Rane

**Contact Number:** 7350160502

**Date of Audit:** 26/12/2024

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.



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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

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MEDA, Government of Maharashtra

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### **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.



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### **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.



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### **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<sub>2</sub> 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.





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### **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



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### **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.



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### 2. OVERVIEW

#### 2.1. LOCATION



Sr. No.	Head	Details	Remark
1.	Name of Institute	Children welfare centre's college of law	
2.	Category	Educational Institute	College
3.	Address	Valnai village, marve road, Malad (west), Mumbai-4000064	
4.	State	Maharashtra	
5.	Nearest Railway Station		Outstation
		Malad	Local
6.	Nearest Bus Station	Malad	Interstate
			Intrastate
7.	Nearest Airport	Santacruz (east)	
8.	Longitude	18.514259	
9.	Latitude	73.828758	Educational Institute

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### 2.2. Synopsis

Sr. No.	Head	Details
1.	Name of Applicant Institution	CHILDREN WELFARE CENTRE'S COLLEGE OF LAW
2.	Address	VALNAI VILLAGE, MARVE ROAD, MALAD (WEST), MUMBAI-4000064
3.	Contact Number	9967529177
4.	Registration Certificate Number	Bom/322/1981 G.B.B.S.D.
5.	Sector Type	PRIVATE
6.	Senior Management Contact	SHRI. SURAJ WADHWA
7.	Contact Number	9768010303
8.	Status of Institution (Pvt. / Public)	PRIVATE
9.	Company Turnover (Rs. In Lakhs)	Not Applicable
10.	Number of Employees	27
11.	Approximate Floor Area (ft <sup>2</sup> )	400
12.	Year of Establishment	2010
13.	Plot Area (ft <sup>2</sup> )	3248.3
14.	Constructed Area (ft <sup>2</sup> )	11232.57
15.	Greenery Area (ft <sup>2</sup> )	
16.	Roof Area (ft <sup>2</sup> )	
17.	No. of Buildings	01
18.	Building Type	RCC
19.	Age of Building	18
20.	Leakages/Cracks on wall/roof	NA
21.	No. of workers (Footfall)	30 to 35
22.	No. of Customers (Footfall)	870
23.	Day Vs Night activity in %	NA
24.	Shifts per day	NA
25.	Hours per shift	NA
26.	DG Set installed	NO
27.	Inverter Installed	NO
28.	Renewable Energy System installed	NO
29.	(Solar/Wind/Biomass/Biofuel/Etc.)	NO

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### 2.3. Layouts

#### Sitemap

- Attached in annexure-I

#### Floor Map

- Attached in annexure-I

#### Google Map

- Attached in annexure-I

### 2.4. About Premises

Nestled in the vibrant heart of Andheri, Children Welfare Centre stands a titan in the educational landscape for four remarkable decades. Founded by visionaries who pledged wisdom and effort to create an institution with a profound purpose, Children Welfare Centre Trust emerged to craft better human beings and fortify the ideals of universal citizenship. Enshrined under the Public Trust Act, 1950, our institution encompasses schools and colleges, offering advanced education programs within Mumbai's cosmopolitan expanse. Entering 42nd year, Children Welfare Centre continues to leave a lasting legacy in the field of education, achieving remarkable milestones. Students' progress and success stand as a living testament to the dedication of the founder members and educators of Children Welfare Trust. Lifelong learning, infused with a positive ethos, is the cornerstone of our educational philosophy.

The Children's Welfare Centre's College of Law was established in 2010 in Malad (West), Mumbai, with a vision to provide quality legal education and create professionals who contribute meaningfully to the legal fraternity and society. The college is located in Malad (West), a bustling suburb of Mumbai, offering a blend of an academic environment and access to urban amenities. Its proximity to various legal institutions makes it an ideal place for law students. The college is affiliated with the University of Mumbai and is approved by the Bar Council of India (BCI), ensuring compliance with the highest standards of legal education. The college provides a comprehensive curriculum with courses of **LL.B. (Three-Year Course)** - Designed for graduates from any discipline, **B.L.S. LL.B. (Five-Year Integrated Course)** - Tailored for students who wish to pursue law after completing their higher secondary education, LL.M. (Two-Year Integrated Course) - provided for students to undertake a comprehensive study of law along with One Year Diploma Course in Cyber Security and Intellectual Property Rights. The institution is known for its experienced and dedicated faculty, comprising legal professionals and academicians who provide students with both theoretical and practical knowledge.

#### Activities and Achievements:

**Moot Court Competitions:** Regular intra-college and inter-college competitions to hone advocacy skills.

**Workshops and Seminars:** Periodic sessions on emerging legal trends and landmark judgments.

**Legal Aid Cell:** A platform for students to provide free legal assistance to the underprivileged under expert guidance.

**Internship Programs:** Collaborations with law firms, NGOs, and legal practitioners to offer practical exposure.

**Cultural and Sports Events:** Encouraging holistic development by engaging students in extracurricular activities.

The college takes pride in its alumni who have excelled in various domains, including judiciary, corporate law, public service, and litigation. The college actively participates in social initiatives, organizing legal awareness camps, workshops on human rights, and drives for women and child welfare. Children's Welfare Centre's College of Law continues to empower students with the knowledge and skills needed to face the dynamic challenges of the legal profession.

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### 2.5 Documentation:

ITEM	YES/NO
<b>a. Existing Statutory Layouts</b>	
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

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### 3. Energy Audit

#### 3.1. Electricity and Fuel Consumption Analysis

College have not kept record of their Fuel Consumption.

SL No.	Particulars	Unit	Remark
1	Supply Type	LT/HT	LT
2	Utility Company	DISCOM	AECL
3	Consumer Number	NO	152188455
4	Meter Number	NO	L981655
5	Feeder	SOURCE	NA
6	Tariff	TYPE	LT IV B
7	Sanctioned Load	KW	
8	Connected Load	KW	
9	Contract Demand	KVA	70
10	RMD (Year)	KVA	40

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	<ul style="list-style-type: none"> <li>• PNG</li> <li>• LNG</li> <li>• CNG</li> </ul>	NA		
10	Renewable Power		NA		
11	Captive (DG Set)		NA		



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### 3.2. Consumption pattern

MONTH	BILL	CONSUMPTION	RATE	PF	RMD
Dec-22	16770	1470	11.12	0.956	39.52
Jan-23	11560	1003	11.10	0.973	39.52
Feb-23	7750	668	10.97	0.988	22.16
Mar-23	7140	615	10.92	0.994	24.64
Apr-23	10100	856	11.28	0.966	55.6
May-23	6920	582	11.13	0.986	43.84
Jun-23	8370	707	11.21	0.98	37.12
Jul-23	10760	918	11.24	0.969	43.12
Aug-23	11720	1007	11.20	0.981	38.88
Sep-23	14900	1279	11.30	0.954	42.8
Oct-23	35000	3062	11.29	0.916	62.56
Nov-23	12392	1055	11.32	0.952	45.84
Dec-23	23050	1980	11.42	0.941	60.24
Jan-24	9600	824	11.11	0.988	52.88
Feb-24	22633	1963	11.30	0.94	47.76
Mar-24	31252	2553	12.07	0.919	45.36
Apr-24	26690	2102	12.47	0.932	54.24
May-24	20810	1516	13.41	0.943	62.88
Jun-24	20040	1448	13.51	0.951	67.36
Jul-24	17880	1291	13.48	0.962	60
Aug-24	24870	1826	13.36	0.944	52.64
Sep-24	30830	2280	13.31	0.914	61.68
Oct-24	24168	1777	13.33	0.941	62.72
Nov-24	12020	872	13.24	0.98	56.4

YEAR	BILL	CONSUMPTION	RATE	PF	RMD
2023	12781	1101	11.17	0.967	41.3
2024	21986	1702	12.67	0.946	57.01
PERCENTAGE	72.0	54.6	13.4	-2.2	38.0

(Note: Percentage values in Positive Figures except PF are Bad and Negative PF figure is Bad)  
 It is observed from Bills provided that, Institute is Consuming Very significantly large amount of Energy, compared to previous year.  
 Institute should monitor & record their actual consumption and it has to be audited in next cycle.  
 It is also recommended to record floor/load wise consumption and it has to be audited in next cycle.





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

YEAR	RATE
2023	11.17
2024	12.67
PERCENTAGE INCREASE IN ONE YEAR	13.4

SL No	Year	Unit Rate	Expenses
1	2023-2024	12.67	258772.08
2	2024-2025	13.30	271710.684
3	2025-2026	13.97	285296.218
4	2026-2027	14.67	299561.029
5	2027-2028	15.40	314539.081
6	2028-2029	16.17	330266.035
7	2029-2030	16.98	346779.336
8	2030-2031	17.83	364118.303
9	2031-2032	18.72	382324.218
10	2032-2033	19.66	401440.429
11	2033-2034	20.64	421512.451
12	2034-2035	21.67	442588.073
13	2035-2036	22.75	464717.477
14	2036-2037	23.89	487953.351
15	2037-2038	25.09	512351.018
16	2038-2039	26.34	537968.569
17	2039-2040	27.66	564866.998
18	2040-2041	29.04	593110.347
19	2041-2042	30.49	622765.865
20	2042-2043	32.02	653904.158

Considering 5% Inflation institute is going to pay Rs. 85,00,000/- for electricity.



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### 3.4. Load Profile

Sr No	Floor	Room	Normal Tubes	LED Tubes	Fans	ACs	PC	Printer
<b>1</b>	<b>GRD. FLOOR</b>	Principal Cabin	0	6	1	1	0	0
		Mgt. Cabin	0	6	1	0	0	0
		Admin Room	0	14	4	2	10	7
		Auditorium	0	53	0	4	0	0
		Conference Room	0	12	1	2	0	0
		Legal Aid Room	0	4	1	0	0	0
<b>2</b>	<b>3RD FLOOR</b>	Room No. 1	0	9	8	0	0	0
		Room No. 2	0	9	8	0	0	0
		Room No. 3	0	9	8	0	0	0
		Room No. 4	0	9	8	0	0	0
		Room No. 5	0	9	6	0	0	0
		Room No. 6	0	9	6	0	0	0
		Room No. 7	0	9	6	0	0	0
		Room No. 8	0	9	6	0	0	0
		Room No. 9	0	9	6	0	0	0
		Room No. 10	0	9	6	0	0	0
		Canteen	0	9	6	0	0	0
		Staff Room	0	9	6	0	2	0
		IT Room	0	12	4	4	30	1
		Moot Court Room	0	18	8	3	0	0
		Women Development Cell	0	4	2	0	0	0
		Examination Room	0	4	1	0	2	1
<b>3</b>	<b>4TH FLOOR</b>	Multipurpose Hall	0	24	8	0	0	0
		Gym	0	12	6	0	0	0
		Library	0	24	6	4	1	0
		Study Room	0	18	6	0	0	0
		Girls Common Room	0	6	3	0	0	0
		Boys Common Room	0	6	3	0	0	0
<b>4</b>	<b>7TH FLOOR</b>	Multipurpose Hall	0	24	8	0	0	0
		1 <sup>st</sup> Yr LL.M. Div-A	0	16	8	0	0	0
		1 <sup>st</sup> Yr LL.M. Div-B	0	16	8	0	0	0
		2 <sup>nd</sup> Yr LL.M. Div-A	0	16	8	0	0	0
		2 <sup>nd</sup> Yr LL.M. Div-B	0	16	6	0	0	0
		Girls Common Room	0	12	5	0	0	0
		Boys Common Room	0	12	5	0	0	0
		IQAC Cell	0	6	3	0	0	0
		Incubation Centre	0	9	3	0	0	0

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

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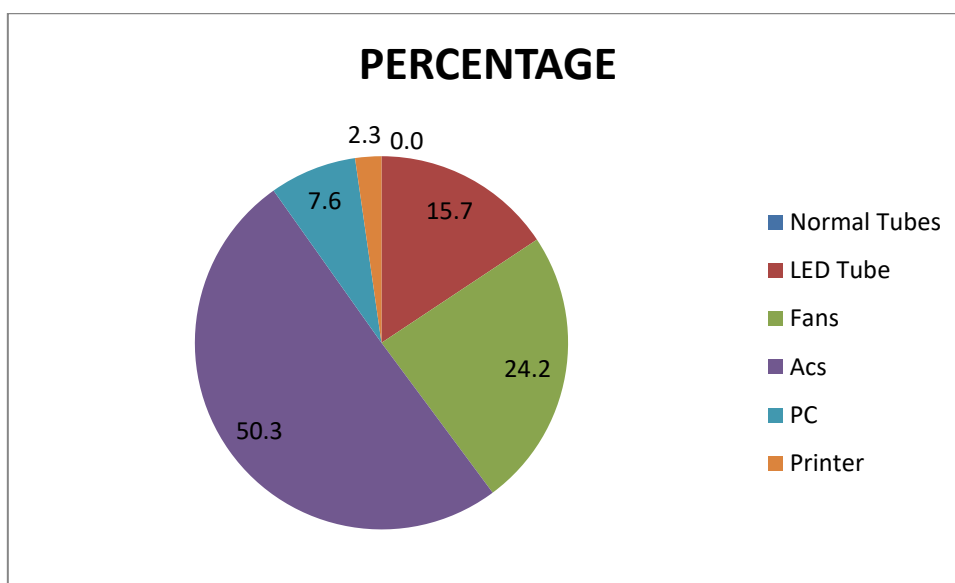
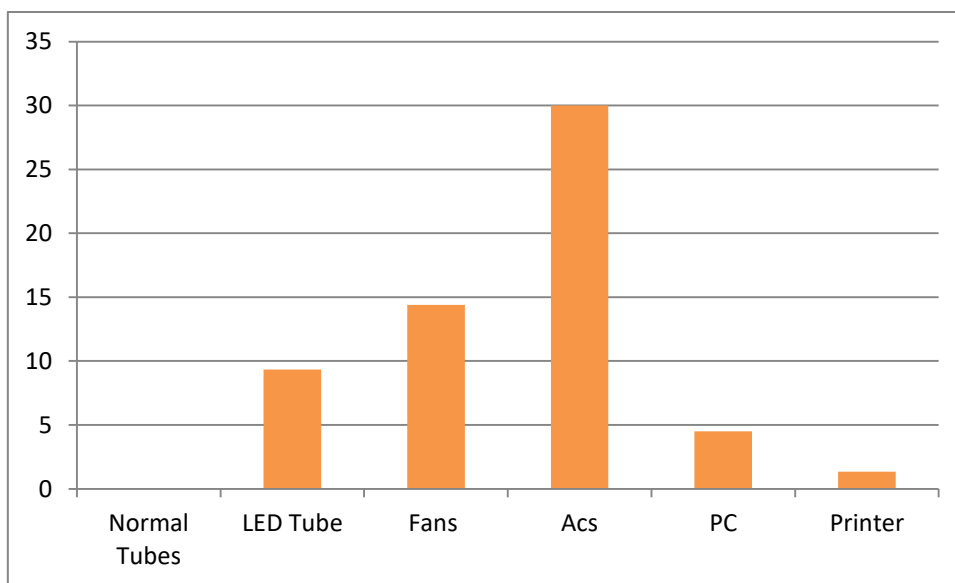
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	Store Room	0	9	3	0	0	0
<b>TOTAL</b>		0	467	192	20	45	9

LOAD	Normal Tubes	LED Tube	Fans	Acs	PC	Printer
VALUES	0	9.34	14.4	30	4.5	1.4

Connected Load	Operated Load
Kw	KW
<b>59.59</b>	<b>39.52</b>





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### **3.5. Losses**

#### **3.5.1. REPLACE REGULAR FANS WITH BLDC**

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

#### **3.5.2. Power Factor**

Since PF Penalty and loss is charge on percentage basis and in your Bill it is not in penal region and you are not charged KVAh basis 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 lagging which is a problem and can be solved after PQ analysis. Hence it is recommended to Perform PQ analysis followed by corrective measures.

#### **3.5.3. Demand**

Since your RMD is less than CD; you are using lesser peak energy than presumed and in your Bill it is not in penal region and you are not charged KVA basis hence it doesn't affect you financially. Observe if any change in regulations in future abiding you to pay on KVA basis; then immediate action to be taken.



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### 4. GREEN AUDIT

#### 4.1. Floral Diversity

College have not kept record of their Floral Diversity.

Year	No. of Trees
2023-24	10
2023-24	0
<b>Total</b>	<b>10</b>

#### 4.2. Faunal Diversity

College have not kept record of their Faunal Diversity.

#### 4.3. Green Approach

Sr. No.	ACTIVITY	YES/NO	REMARK
1.	E-waste collection box:	YES	Institute has separate Dry waste Management system. Dry waste is collected in separate designated area; disposal policy yet to be defined.
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	NO	
11.	Water resources	NO	
12.	Rain water harvesting:	NO	
13.	Waste water treatment:	NO	
14.	RO water treatment	YES	Institute uses RO filters to purify drinking water
15.	Greenery:	YES	Institute has maintained Greenery within campus

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16.	Plantation: (trees and plants in campus)	NO	
17.	Plantation drive by the institute: (trees and plants outside campus)	NO	
18.	LED lights:	YES	Institute have replaced Conventional lights with LEDs at various locations.
19.	Energy & environment monitoring systems	NO	
20.	Save energy posters	NO	
21.	Energy management	NO	
22.	Renewables (solar/wind)	NO	
23.	Sensor based equipment	NO	
24.	Switch off posters	NO	
25.	Emergency contact numbers list:	YES	Institute has prepared and displayed Emergency contact List at visible places.
26.	Health/medical facilities	NO	
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	



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### 5. ENVIRONMENT AUDIT

#### 5.1. Air Quality

College have not kept record of quarterly & annual Air Quality.

POLLUTANTS	PM 2.5	PM 10	O3	CO	NO2	SO2
LIMIT	35	150	21	35	10	6
UNIT	µgm/m <sup>3</sup>	µgm/m <sup>3</sup>	µgm/m <sup>3</sup>	µgm/m <sup>3</sup>	µgm/m <sup>3</sup>	µgm/m <sup>3</sup>
VALUE	18	24	7	4	3	2
REMARK	OK	GOOD	GOOD	GOOD	GOOD	OK

#### 5.2. Water Quality

##### 5.2.1. Water Quality

College have not kept record of quarterly & annual Water Quality and Usage.

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
2	Bore well	----	--		---		--	--	--
3	Open Well	----	--		---		--	--	--
4	Any other source	----	--		---		--	--	--

##### 5.2.2. Filtration

Filtration is done through Reverse Osmosis (RO) MACHINES.

##### 5.2.3. Water Balance

SL NO	HEAD	UNIT	QUANTITY
1	AVERAGE DAILY OCCUPANTS	NO	900
2	AVERAGE DAILY VISITORS	NO	10
3	WATER REQUIREMENT FOR OCCUPANTS	LPD	13500
4	WATER REQUIREMENT FOR VISITORS	LPD	150
5	TOTAL WATER REQUIREMENT	LPD	13650
6	INHOUSE WATER SOURCE	LPD	0
7	OUTSOURCED WATER	LPD	13650
8	HARVESTED RAIN WATER	LPA	0
9	SURPLUS/SHORTFALL WATER	LPA	-3030000

#### Note:

- Water use is not measured.
- Water use for Trees and Plantation is not defined.



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### 5.3. Indoor Environment Quality

College have not kept record of quarterly & annual Indoor Environment Quality.

Sr No	Floor	Room	Illumination	Temperature	Humidity	Noise Level
1	GRD. FLOOR	Principal Cabin	240	28	64.2	36
2		Mgt. Cabin	180	27	62.5	36.5
3		Admin Room	200	28	64	35
4		Auditorium	180	27	63	34
5		Conference Room	248	28	64.2	36
6		Legal Aid Room	178	29	65.2	36
8	3RD FLOOR	Room No. 1	240	29	64.3	34
9		Room No. 2	200	28	64.1	37
10		Room No. 3	175	28	63.5	34
11		Room No. 4	246	27	65.4	37
12		Room No. 5	145	28	64.6	36
13		Room No. 6	142	27	64.3	35
14		Room No. 7	176	27	65.3	35
15		Room No. 8	178	27	64.2	35
16		Room No. 9	140	27	64.3	34
17		Room No. 10	147	26	65.5	35
18		Canteen	145	27	64.2	34
19		Staff Room	192	27	64.3	36
20		IT Room	188	25	62.2	32

#### Note:

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





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### 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	Non- Quantified	NA
2.	Paper	8-10 KGPM	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	40-50 KGPM	Municipal Waste
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

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- 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  
**NO**



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### **5.5. Carbon Footprint**

#### **5.5.1. Emission**

<b>HEAD</b>	<b>VALUE</b>	<b>UNIT</b>
<b>Electricity Consumption</b>	263832	<b>KWh</b>
<b>Diesel Consumption</b>	0	<b>Ltrs</b>
<b>Other Energy Consumption</b>	0	<b>M<sup>3</sup></b>
<b>Impact</b>		
<b>Co2 Generated</b>	170448	<b>Kg</b>
<b>Water Equivalent</b>	558875	<b>LTR</b>

#### **5.5.2. Sequestration**

##### **5.5.2.1. CO2**

NIL

##### **5.5.2.2. WATER**

NIL

#### **5.5.3. Observations**

Carbon Footprint of Institute is 170 per person

Carbon Sequestration of Institute is NIL per person

#### **5.5.4. Recommendations**

Carbon Sequestration is not observed.

Carbon Footprint found Bad category.



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### **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.



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### **PART B ENERGY AUDIT**

1. It is recommended that to implement recommendations under losses section:-
  - a. Expected approximate Saving is 7.2 KW and 108kwh per day per billing cycle.
  - b. It is recommended to Perform PQ analysis followed by corrective measures.
2. It is recommended that Institute should keep record of their actual Fuel Consumption (Monthly/Quarterly/Annually) and it has to be audited in next cycle.
3. It is recommended that Institute should record Floor/load/activity wise consumption 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 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 to install Renewable Energy System.
7. It is recommended to install IOT based online PQnEMS System to collect all the data.
8. It is recommended that Keep AC temperature between 24<sup>0</sup>C to 26<sup>0</sup> 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



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### **PART C GREEN AUDIT**

1. It is recommended that institute shall prepare and preserve record of Floral Diversity.
2. It is recommended that institute shall prepare and preserve record of Faunal Diversity.
3. It is recommended that institute shall use environment friendly cleaning agents to clean the premises.
4. It is recommended that institute shall prepare Policy & SOP; also to have agreement with authorized entity to safe disposal and recycling of E-waste.
5. It is recommended that institute shall prepare Policy & SOP; also to have agreement with authorized entity to safe disposal and recycling of Paper waste.
6. It is recommended that Institute may run out of campus activities under Swaccha Bharat Standards.
7. It is recommended that Institute should record Quantity of water used, It is also recommended to execute Water Audit in the campus.
8. It is recommended that Institute should implement Rain water harvesting as per IGBC guidelines.
9. It is recommended that Institute should implement Waste water treatment as per IGBC guidelines.
10. It is recommended that Institute should conduct In-campus and off-campus plantation activities every year in suitable season with recommended species.
11. It is recommended that Institute practices waste management but efforts are scattered, institute shall implement Target oriented waste management system.
12. It is recommended that Institute to install Energy & environment monitoring systems
13. It is recommended that institute shall implement Target oriented Energy management system.
14. It is recommended that institute shall implement Sensor based lights in passage.
15. It is recommended that institute shall have available Medical officer or to be empanelled nearby physician for emergency support.
16. It is recommended that institute shall undertake electrical safety Audit.
17. It is recommended that institute shall designate people and they shall undergo Disaster Management Training.
18. It is recommended that Avoid Draft printing, use email/Whatsapp maximum.
19. It is recommended that institute shall prepare observe and undergo Code of conducts and Standard Operating Procedures for Energy, Green and Environment management system.
20. It is recommended that institute shall arrange Exhibitions and identification programs for students and locals to understand medicinal plants.

**Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning**

**Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.**

**[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 30**



## **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.

21. 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 keep record of Air Quality (quarterly & annual).
2. It is recommended that institute shall keep record of Water Quality (quarterly & annual).
3. It is recommended that institute shall keep record of Water Use (quarterly & annual).
4. It is recommended that institute shall keep record of Indoor Environment Quality (quarterly & annual).
5. It is recommended that institute shall do specific and target oriented efforts for carbon sequestration and hence reducing carbon footprints.
6. 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.
7. It is recommended that institute shall Quantify the output of Rain Water Harvesting System and increase the capacity to mitigate shortfall.
8. It is recommended that institute shall Install Meters to measure actual demand and usage of water.
9. 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.



## **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.

### **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 "Children welfare centre's college of Law-Valnai village, Marve road, Malad (west), Mumbai-400064." Please study it thoroughly and implement recommendations and suggestions at earliest.



CHILDREN WELFARE CENTRE'S COLLEGE OF LAW

# GREEN APPROACH OF INSTITUTE

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ANNEXURE-I

**Dr. Anant Kalase & Team**

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

## PART-I GENERAL ARRANGEMENTS

### 1. Photo of college Building



## 2. About College (One Page write up consisting Details about college, establishment, courses, facilities, achievements, activities, etc.)

Nestled in the vibrant heart of Andheri, Children Welfare Centre stands a titan in the educational landscape for four remarkable decades. Founded by visionaries who pledged wisdom and effort to create an institution with a profound purpose, Children Welfare Centre Trust emerged to craft better human beings and fortify the ideals of universal citizenship. Enshrined under the Public Trust Act, 1950, our institution encompasses schools and colleges, offering advanced education programs within Mumbai's cosmopolitan expanse. Entering 42nd year, Children Welfare Centre continues to leave a lasting legacy in the field of education, achieving remarkable milestones. Students' progress and success stand as a living testament to the dedication of the founder members and educators of Children Welfare Trust. Lifelong learning, infused with a positive ethos, is the cornerstone of our educational philosophy.

The Children's Welfare Centre's College of Law was established in 2010 in Malad (West), Mumbai, with a vision to provide quality legal education and create professionals who contribute meaningfully to the legal fraternity and society. The college is located in Malad (West), a bustling suburb of Mumbai, offering a blend of an academic environment and access to urban amenities. Its proximity to various legal institutions makes it an ideal place for law students. The college is affiliated with the University of Mumbai and is approved by the Bar Council of India (BCI), ensuring compliance with the highest standards of legal education. The college provides a comprehensive curriculum with courses of **LL.B. (Three-Year Course)** - Designed for graduates from any discipline, **B.L.S. LL.B. (Five-Year Integrated Course)** - Tailored for students who wish to pursue law after completing their higher secondary education, **LL.M. (Two-Year Integrated Course)** - provided for students to undertake a comprehensive study of law along with **One Year Diploma Course** in Cyber Security and Intellectual Property Rights. The institution is known for its experienced and dedicated faculty, comprising legal professionals and academicians who provide students with both theoretical and practical knowledge.

### Activities and Achievements:

1. **Moot Court Competitions:** Regular intra-college and inter-college competitions to hone advocacy skills.
2. **Workshops and Seminars:** Periodic sessions on emerging legal trends and landmark judgments.
3. **Legal Aid Cell:** A platform for students to provide free legal assistance to the underprivileged under expert guidance.
4. **Internship Programs:** Collaborations with law firms, NGOs, and legal practitioners to offer practical exposure.
5. **Cultural and Sports Events:** Encouraging holistic development by engaging students in extracurricular activities.

The college takes pride in its alumni who have excelled in various domains, including judiciary, corporate law, public service, and litigation. The college actively participates in social initiatives, organizing legal awareness camps, workshops on human rights, and drives for women and child welfare. Children's Welfare Centre's College of Law continues to empower students with the knowledge and skills needed to face the dynamic challenges of the legal profession.

3. **Infrastructure (Classrooms, Library, Laboratories, Computer rooms, Gyms, Recreation rooms, seminar halls, Etc. Two Photos each and 2-4 lines description about facility and utilization) (PLEASE NOTE THAT THIS PART WILL REMAIN COMMON HENCE PROVIDE DETAILS LASTING FOR TWO YEARS; IF ANY CHANGES MADE IN TWO YEARS THEN MENTION SUCH CHANGE)For Example if team member left the college then make two lists for first year and second year, if any changes in infrastructure then mention with photos)**

- a. **Conference Room:** Student presentations and staff meetings are conducted in the Conference Room of the College which is well resourced with a round table, sound system and projector.



- b. **IT Lab:** We have dedicated a separate IT lab for our students to cater to their academic requirements. We provide numerous computing facilities for our students & faculty, beginning with high speed internet access to the latest softwares installed in our computers. The IT lab is open to all the students and

faculty members of the institution for academic purposes. They are also used to conduct various IT workshops.



- c. **Library:** The Library has a vast collection of books and journals on a variety of subjects. The library remains open from 8.30 a.m. to 2.00 p.m. on all working days, except Sundays and public holidays.



- d. **Reading Room:** The reading room serves as a quiet, conducive space for students to engage in focused reading, studying, research and self-reflection.



- e. **Gymnasium:** Gymnasium is armed with latest work out machines for our students. With a round the clock access to the facility the students can also seek guidance related to the kind of exercise they must indulge in from the personal trainers deployed on the workout floor.



- f. **Moot Court:** Moot court is an extracurricular activity that allows students to practice legal research and writing skills in writing a case brief and preparing them for engaging in oral arguments. Mooting helps students in improving their presentation and argumentative skills which is essential to prove their case. It helps in developing self-confidence which helps them in speaking in front of others. Moot court often involves competitions where students' briefs are compared and given scores.





- g. **Counselling Unit:** The College has appointed a qualified counsellor to help students identify and understand their personal and psychological problems and guide them to find solutions. Students are helped to identify their own potential and to set their goals and adjust better in today's competitive world.



- h. **Canteen:** The College boasts of a well-equipped canteen which caters to the dietary needs of both students and staff. Healthy as well as nutritious food items are available during the working hours at minimal and affordable prices.

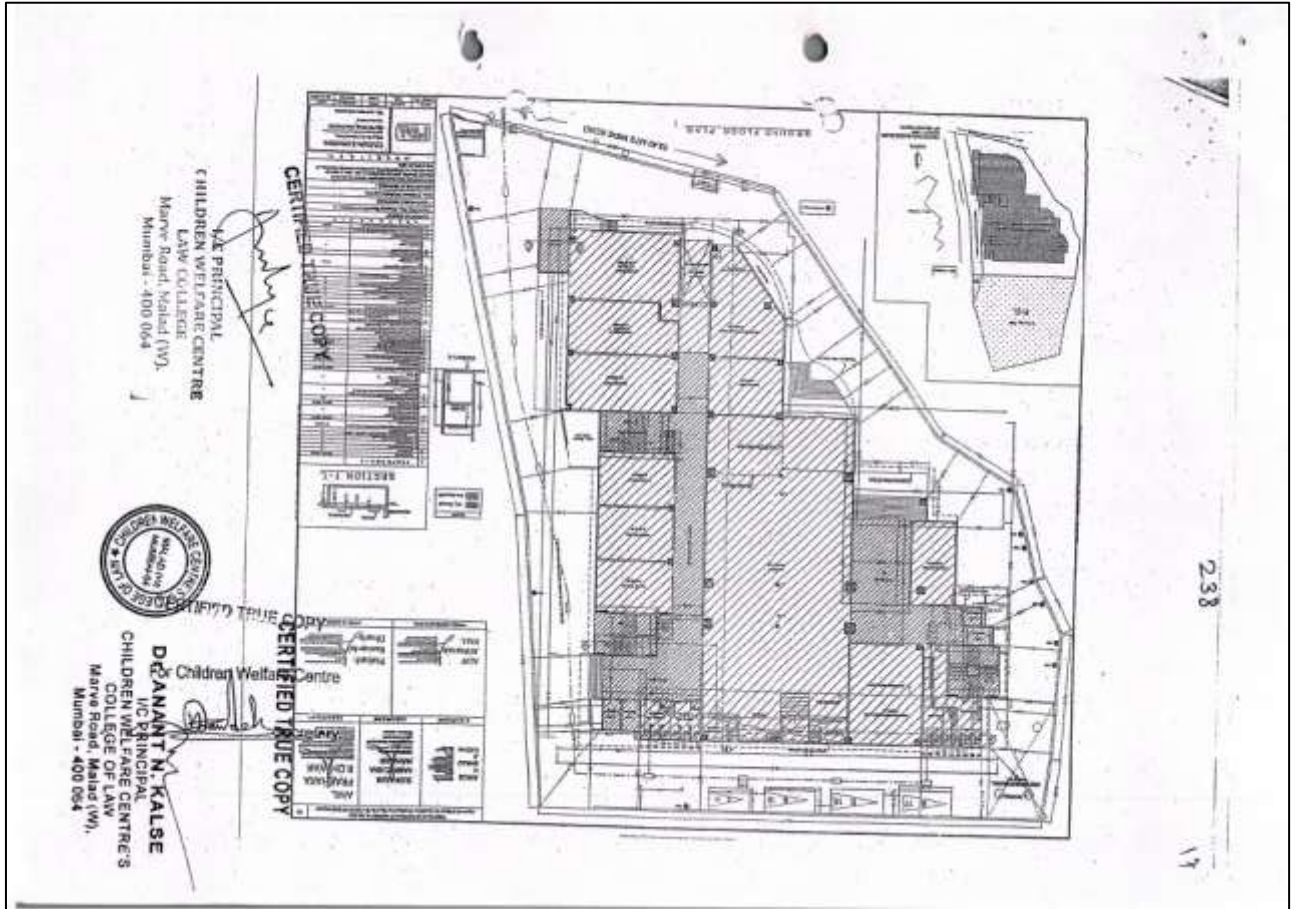


- i. **ICT Classroom: An ICT (Information and Communication Technology) Classroom** is a modern learning environment that integrates technology to enhance teaching and learning experiences. It is equipped with tools and resources designed to foster interactive, collaborative, and engaging educational activities. It represents a blend of traditional teaching methods with modern technology, creating a dynamic and effective learning environment.



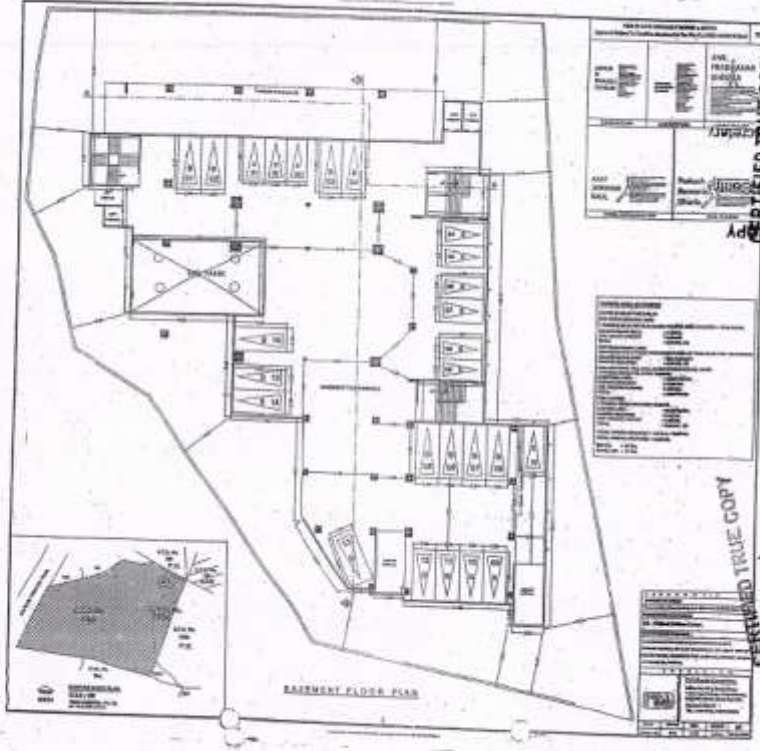
# Layouts

## a) Floor Map



239

192



Sl. No.	Room No.	Room Name	Area (sq. ft.)	Remarks
1	101	Office	100	
2	102	Office	100	
3	103	Office	100	
4	104	Office	100	
5	105	Office	100	
6	106	Office	100	
7	107	Office	100	
8	108	Office	100	
9	109	Office	100	
10	110	Office	100	
11	111	Office	100	
12	112	Office	100	
13	113	Office	100	
14	114	Office	100	
15	115	Office	100	
16	116	Office	100	
17	117	Office	100	
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19	119	Office	100	
20	120	Office	100	

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 For Children Welfare Centre  
 Dr. Anant N. Kalse



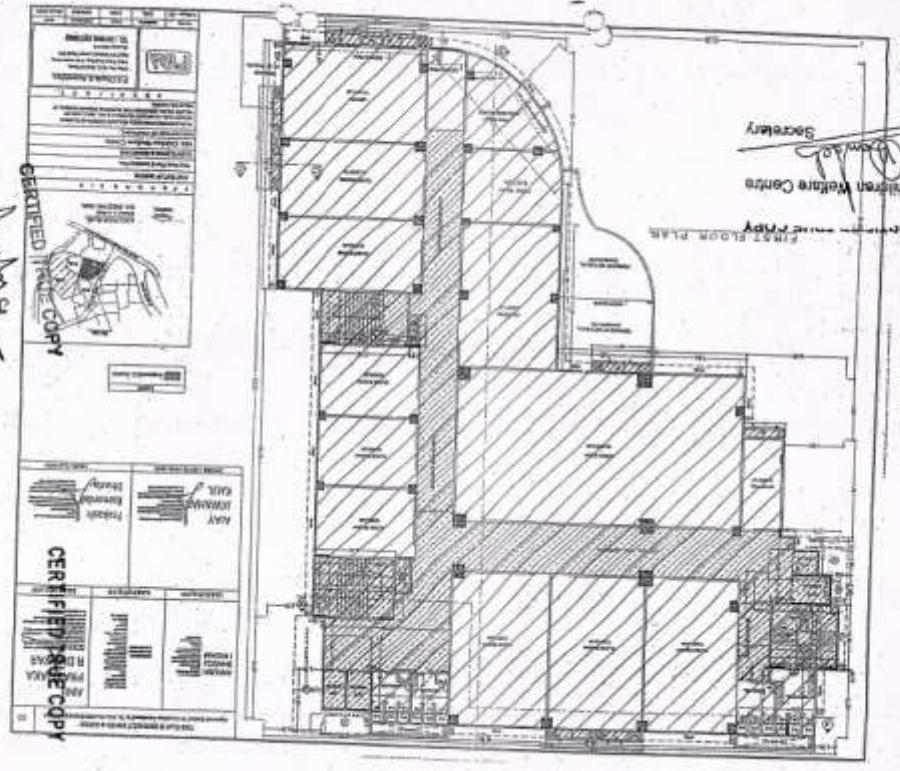
**Dr. ANANT N. KALSE**  
 J.C. PRINCIPAL  
 CHILDREN WELFARE CENTRE'S  
 COLLEGE OF LAW  
 Marve Road, Malad (W),  
 Mumbai - 400 064

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 LAW COLLEGE  
 Marve Road, Malad (W),  
 Mumbai - 400 064

J.C. PRINCIPAL  
 CHILDREN WELFARE CENTRE  
 LAW COLLEGE  
 Marve Road, Malad (W),  
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Secretary  
For Children Welfare Centre

For Children Welfare Centre  
Certificate Copy  
FIRST FLOOR PLAN



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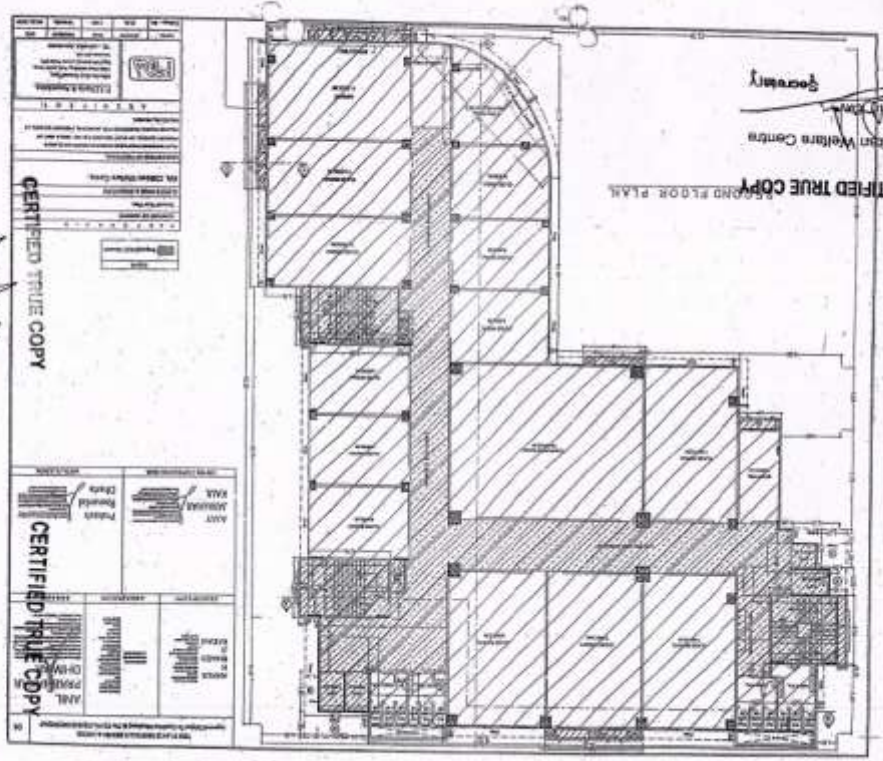
Principal  
CHILDREN WELFARE CENTRE  
LAW COLLEGE  
Marve Road, Malad (W),  
Mumbai - 400 054



Dr. ANANT N. KALSE  
J.C. PRINCIPAL  
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Marve Road, Malad (W),  
Mumbai - 400 054

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Geometry

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SECOND FLOOR PLAN



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*[Signature]*  
 I/AS PRINCIPAL  
 CHILDREN WELFARE CENTRE  
 LAW COLLEGE  
 Marve Road, Malad (W)  
 Mumbai - 400 064



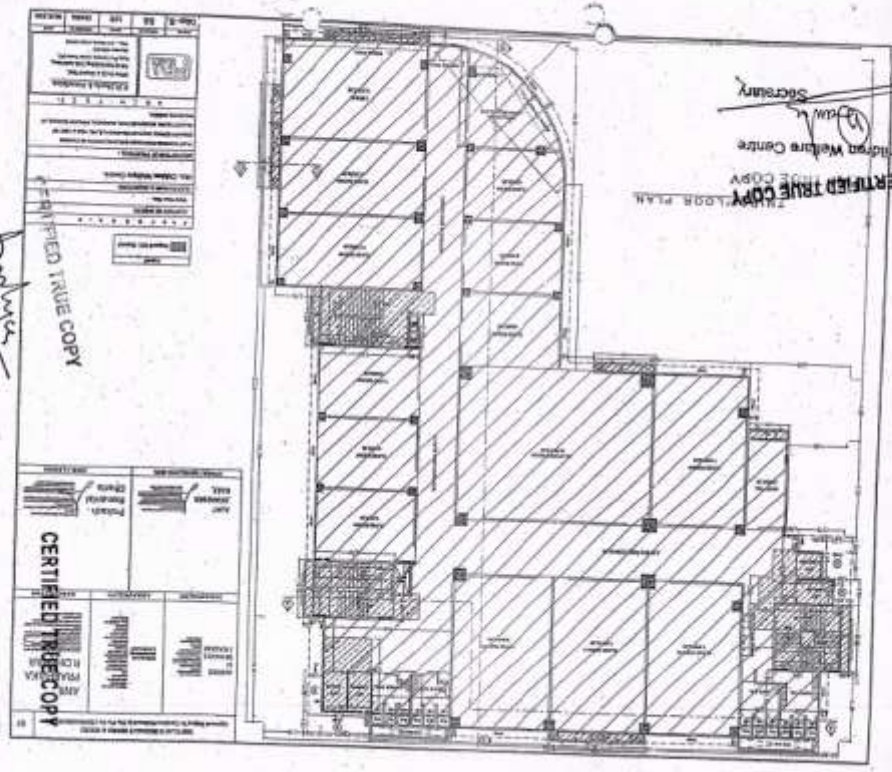
*[Signature]*  
 DR. AMANT N. KALSE  
 I/C PRINCIPAL  
 CHILDREN WELFARE CENTRES  
 COLLEGE OF LAW  
 Marve Road, Malad (W),  
 Mumbai - 400 064



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LAW COLLEGE  
MARVE ROAD, MALIND (W),  
MUMBAI - 400 054



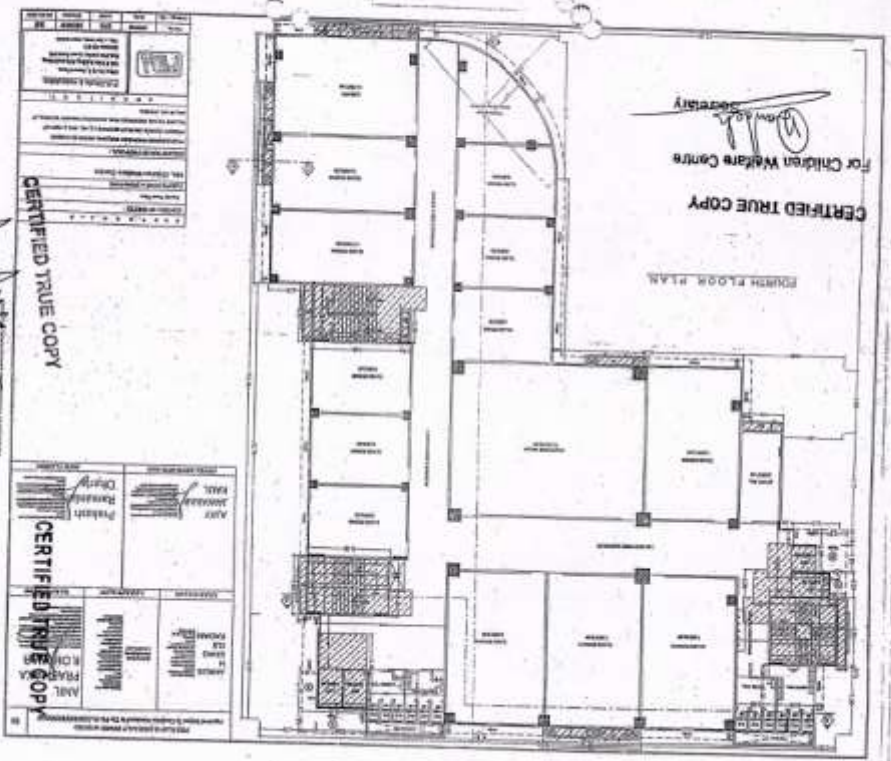
DR. ANANT N. KALSE  
J.C. PRINCEPAL  
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COLLEGE OF LAW  
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MUMBAI - 400 054

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**CHILDREN WELFARE CENTRE**  
 LAW COLLEGE  
 Marve Road, Akhad (W),  
 Mumbai - 400 064

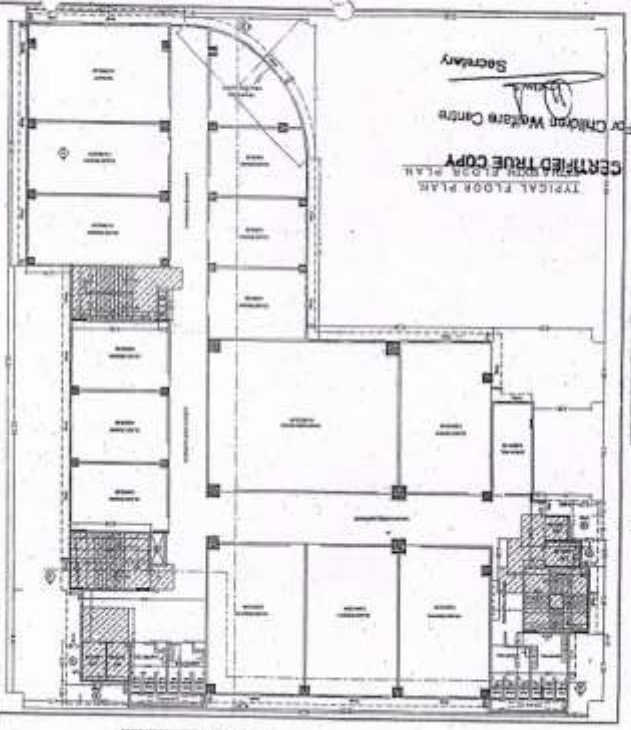


**DR. ANANT N. KALISE**  
 LIC PRINCIPAL  
**CHILDREN WELFARE CENTRE'S**  
 COLLEGE OF LAW  
 Marve Road, Akhad (W),  
 Mumbai - 400 064

244

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SECRETARY  
FOR CHILDREN WELFARE CENTRE  
TYPICAL FLOOR PLAN  
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Project No.	100
Scale	1:100
Date	10/10/2000
Drawn by	...
Checked by	...
Approved by	...

CERTIFIED TRUE COPY

ANY	DATE
...	...

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C. PRINCIPAL  
CHILDREN WELFARE CENTRE  
LAWY COLLEGE  
Marve Road, Marad (WV)  
Mumbai - 400 054

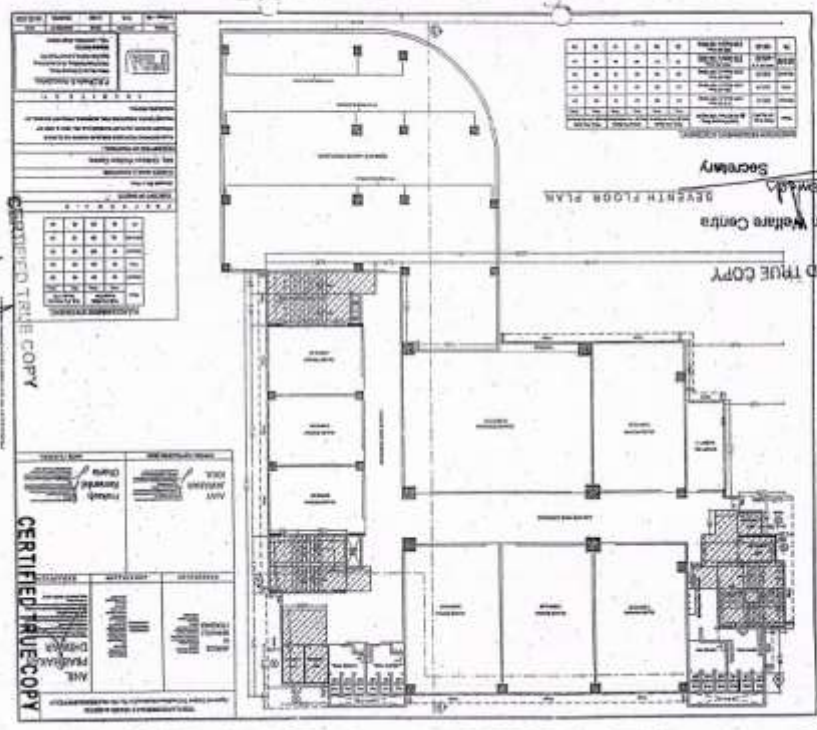


DR. ANANT N. KALSE  
PRINCIPAL  
CHILDREN WELFARE CENTRES  
COLLEGE OF LAW  
Marve Road, Marad (WV)  
Mumbai - 400 054

For Children Welfare Centre  
Secretary

DEEPTHI FLOOR PLAN

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 CHILDREN WELFARE CENTRES  
 COLLEGE OF LAW  
 Marve Road, Kaitad (W),  
 Mumbai - 400 954



DR. ANANT N. KALSE  
 I.C. PRINCIPAL  
 CHILDREN WELFARE CENTRES  
 COLLEGE OF LAW  
 Marve Road, Kaitad (W),  
 Mumbai - 400 954

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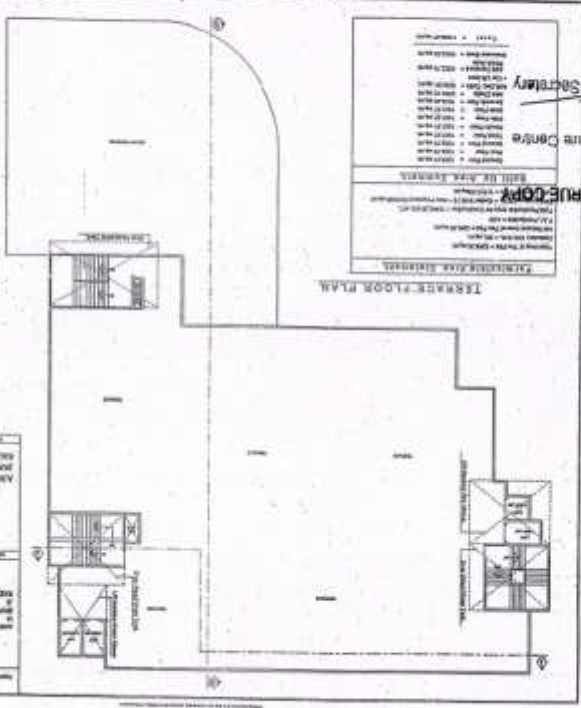
For Children Welfare Centre  
Secretary

**TERMINAL FLOOR PLAN**

Scale: 1/4" = 1'-0"

Room Schedule:

Room No.	Room Name	Area (sq. ft.)
101	Office	150
102	Office	150
103	Office	150
104	Office	150
105	Office	150
106	Office	150
107	Office	150
108	Office	150
109	Office	150
110	Office	150
111	Office	150
112	Office	150
113	Office	150
114	Office	150
115	Office	150
116	Office	150
117	Office	150
118	Office	150
119	Office	150
120	Office	150



**REVISIONS**

No.	Description	Date
1	As per approved drawing	10/10/2010
2	As per approved drawing	10/10/2010
3	As per approved drawing	10/10/2010
4	As per approved drawing	10/10/2010
5	As per approved drawing	10/10/2010
6	As per approved drawing	10/10/2010
7	As per approved drawing	10/10/2010
8	As per approved drawing	10/10/2010
9	As per approved drawing	10/10/2010
10	As per approved drawing	10/10/2010

**GENERAL NOTES**

1. All work to be done as per approved drawing.
2. All materials to be of good quality.
3. All work to be done in accordance with the specifications.
4. All work to be done in accordance with the approved drawing.
5. All work to be done in accordance with the approved drawing.
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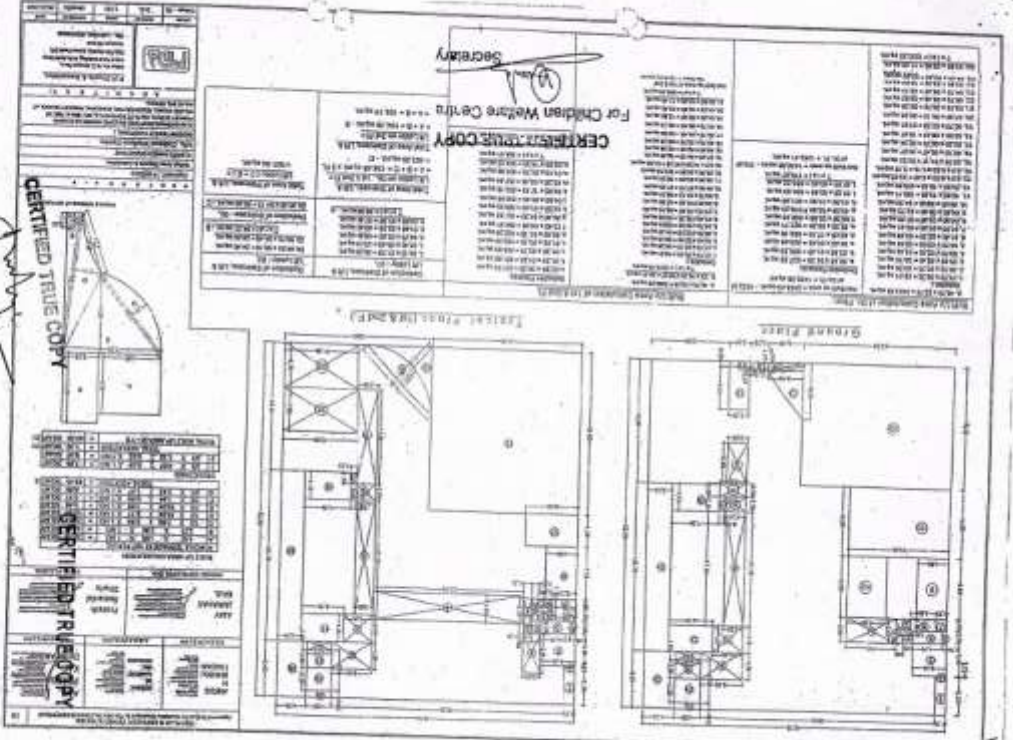
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 Marve Road, Malad (W),  
 Mumbai - 400 064



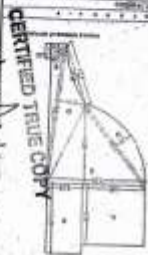
**Dr. ANANT N. KALSE**  
 I/C PRINCIPAL  
 CHILDREN WELFARE CENTRE'S  
 COLLEGE OF LAW  
 Marve Road, Malad (W),  
 Mumbai - 400 064



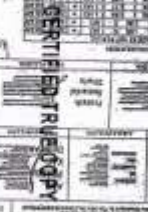
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Room No.	Area (sq. ft.)	Volume (cu. ft.)
1	100	1000
2	150	1500
3	200	2000
4	250	2500
5	300	3000
6	350	3500
7	400	4000
8	450	4500
9	500	5000
10	550	5500
11	600	6000
12	650	6500
13	700	7000
14	750	7500
15	800	8000
16	850	8500
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100	5050	50500



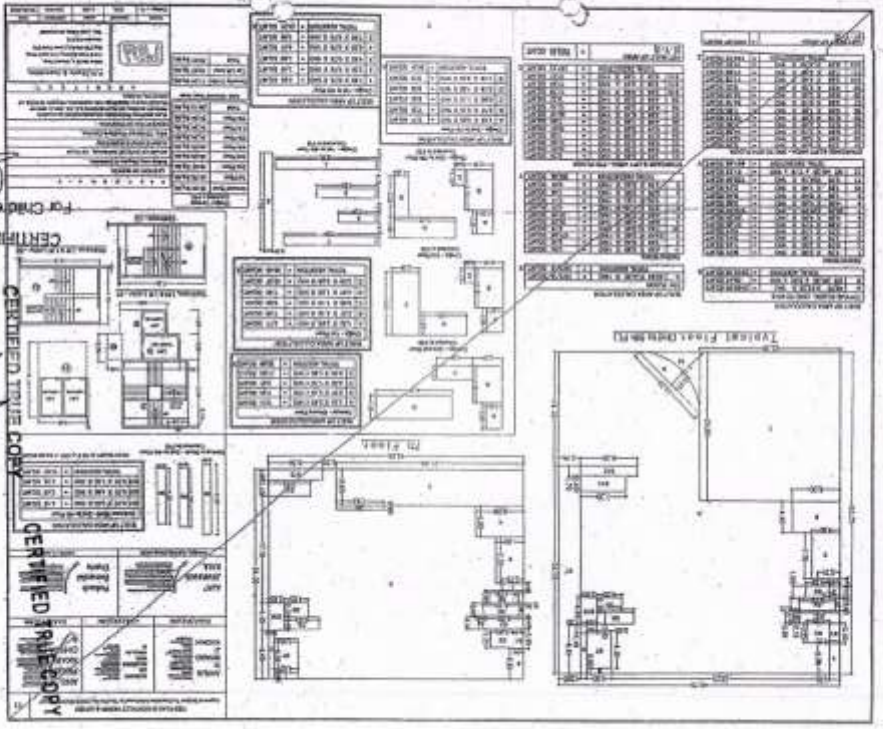
**CHILDREN WELFARE CENTRE**  
 Law College Building  
 Marve Road, Malad (W)  
 Mumbai - 400 064

**DR. ANANT N. KALSE**  
 I.C.E. PRINCIPAL  
 CHILDREN WELFARE CENTRES  
 COLLEGE OF LAW  
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 Mumbai - 400 064



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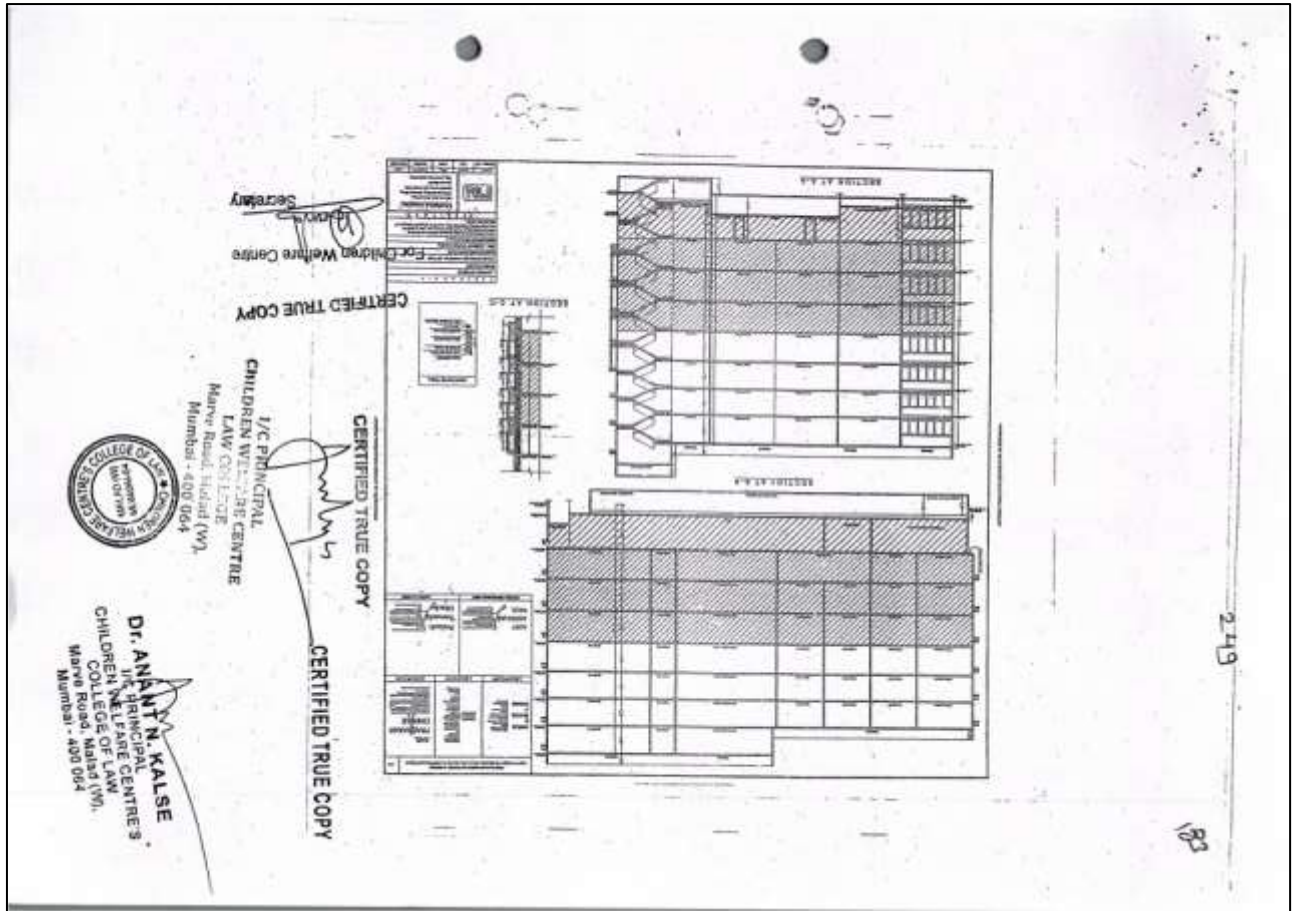


SECRET  
 For Children Welfare Co.  
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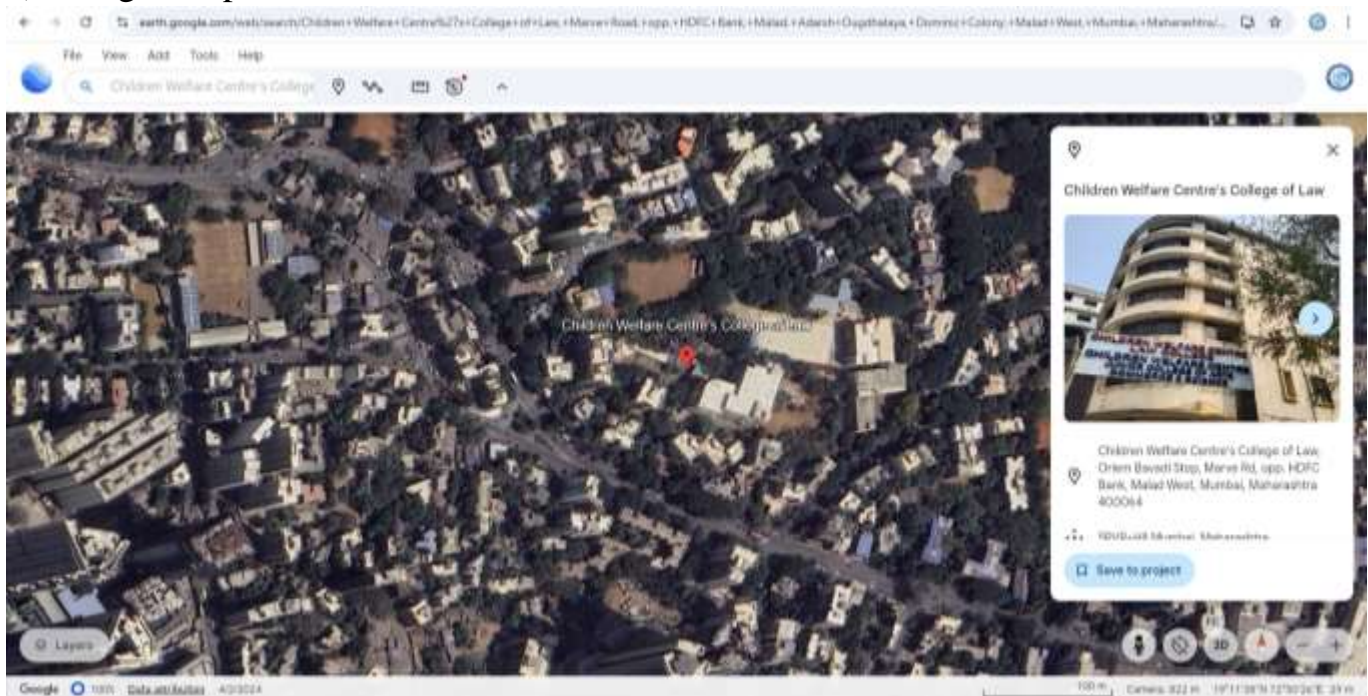
V. CHANDRASEKHAR  
 CHIEF ARCHITECT  
 CHILDREN'S WELFARE CENTRES  
 Laxmi Building  
 Marve Road, Mumbai  
 Mumbai



DR. ANANT N. KALSE  
 J.C. PRINCIPAL  
 CHILDREN'S WELFARE CENTRES  
 COLLEGE OF LAW  
 Marve Road, Marve (W),  
 Mumbai - 400 064



b) Google Map





1. **E-waste collection box:** Institutions and students deposit old electronics here for safe recycling. After responsibly disposing of e-waste, these items are sold/disposed of to the scrap dealer.



2. **Wet Waste Collection:** Very little wet waste from canteen kitchen scraps and organic waste is collected here. It is disposed of at the municipal collection unit.



3. **Paper waste collection box:** This box collects paper waste separately sold to raddi collection vendors. The box collects only dry paper.



4. **Cleaning:** Regular cleaning is done. This helps maintain a healthy and pleasant environment. Use eco-friendly cleaning products to minimise environmental impact.



5. **Composting:** This process turns organic waste into nutrient-rich compost. It reduces waste and enriches the soil for gardening. Garden leaves are composted in the composting pit.



6. **Safe and waste-free environment drive:** Beach cleanups and plastic-free drives are conducted to raise students' awareness of cleaning.



7. **Sewage treatment:** municipal sewer pipes care for the organisation's sewage.
8. **Waste management:** Effective waste management reduces pollution and conserves resources. We segregate waste at the source and follow local disposal guidelines.

9. **Water resources:** Water is conserved throughout the organisation. Non-leaking taps and proper, safe water handling have reduced water wastage.



np

10. **Rainwater harvesting:** We collect and store rainwater for future use, reducing dependency on groundwater and municipal supply. The building has a terrace of \_\_\_\_ sq.m. The water is collected by pipes and released into the waterhole to reach the tanks below. This water is used for gardens and other purposes.



11. **RO-water treatment:** Reverse osmosis provides clean, safe drinking water. Regular maintenance of RO systems ensures optimal performance.



12. **Greenery:** The institution has a green campus, and more trees and green spaces are maintained. Greenery improves air quality and enhances community well-being.



13. **Plantation:** Planting trees helps combat climate change and provides habitat. Participate in local tree-planting events.



14. **Plantation drive:** Join our plantation drive to make our community greener. Every tree planted contributes to a healthier environment.



15. **LED Lights:** The institution has Switched to LED lights to save energy and reduce electricity bills. LEDs are more efficient and have a longer lifespan than traditional bulbs. The entire institution has \_\_\_\_\_ LED tube lights.



16. **Energy monitoring:** Track your energy usage. Smart meters, energy-efficient appliances, and fans with star ratings are used.
17. **Save energy reminders:** Posters to remind everyone to conserve energy. Simple actions like turning off lights and fans are put up in every classroom, teacher's room, and cabins.



18. **Energy management:** Implement strategies to reduce energy consumption. Energy management helps lower costs and environmental impact.

- 19. Emergency contact numbers:** Keep a list of emergency contact numbers handy. Quick access to these numbers can save lives in critical situations. **(please give three names of employees, namely principal, office head, and one senior teacher)**



- 20. Health medical facilities:** Ensure access to quality health and medical facilities. A medical kit and a separate room for the sick are available.
- 21. Switch-off posters:** Post them around the house to remind everyone to turn off lights and appliances when not in use. Reducing unnecessary energy consumption helps the environment.