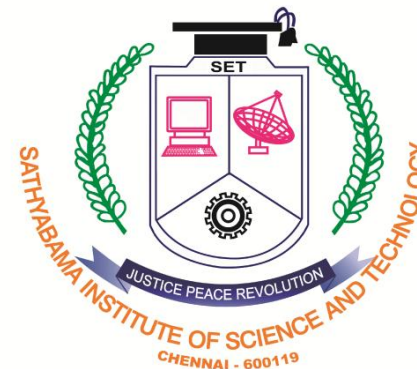


PROFESSIONAL TRAINING REPORT

Submitted in partial fulfillment of the requirements for the award of
Master of Architecture degree in Sustainable Architecture

by

DEEPIKA A 40890004



**SCHOOL OF BUILDING AND ENVIRONMENT
DEPARTMENT OF ARCHITECTURE**

SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
Accredited with Grade "A" by NAAC
JEPPIAAR NAGAR, RAJIV GANDHI SALAI, CHENNAI - 600 119

JAN 2022



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)

(Est U/s(3) of UGC Act,1956) Accredited with Grade "A" by NAAC (A Christian Minority Institution)

JEPPIAAR NAGAR, RAJIV GANDHI SALAI, CHEMMENCHERY, CHENNAI – 600119. TAMILNADU.

PHONE: 2450 1443/9941912481 INTERNET: www.sathyabama.ac.in

E-mail: archhod@sathyabama.ac.in



**SCHOOL OF BUILDING AND ENVIRONMENT
DEPARTMENT OF ARCHITECTURE
M. Arch (Sustainable Architecture)**

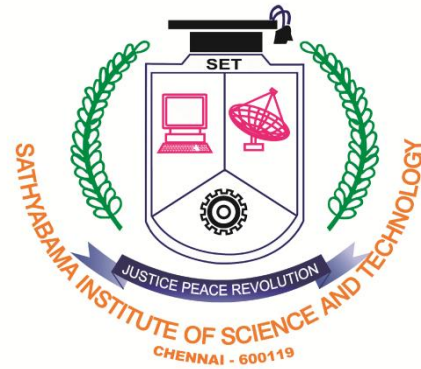
**PROFESSIONAL TRAINING PORTFOLIO (S89A PT)
DEC 2022**

Name of the Student : DEEPIKA A

Semester : III

Reg No. : 40890004

Batch : 2020-2022



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY
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SCHOOL OF BUILDING AND ENVIRONMENT

DEPARTMENT OF ARCHITECTURE

M. Arch (Sustainable Architecture)

BONAFIDE CERTIFICATE

This is to certify that the professional training (S89A PT) is the work of **DEEPIKA A (40890004)** who had undergone training in **Ela Green Buildings & Infrastructures Consultants Private Limited** and has been monitored by the continuous assessment during **Dec 2021 to Jan 2022**.

DR.DEVYANI GANGOPADHYAY

DEAN,

School of Building and Environment

Department of Architecture

Submitted for Viva voce Examination held on _____

Internal Examiner

External Examiner





SATHYABAMA

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PHONE: 2450 1443/9941912481 INTERNET: www.sathyabama.ac.in

E-mail: archhod@sathyabama.ac.in



DECLARATION

I **DEEPIKA A** hereby declare that the Professional Training Report **1/DEC/2021 to 21/JAN/2022** done by me under the guidance of **Ar. SIVASHANKAR T S** is submitted in partial fulfillment of the requirements for the completion of practical training session.

DATE : 21st Jan 2022

PLACE : Chennai

SIGNATURE OF CANDIDATE

ACKNOWLEDGEMENT

I am pleased to acknowledge my sincere thanks to Board of Management of **SATHYABAMA** for their kind encouragement in doing this project and for completing it successfully. I am grateful to them.

I convey my thanks to **Dr. Devyani Gangopadhyay**, Dean and Head of Department , School of building and Environment, Dept. of architecture for providing me necessary support and details at the right time during the progressive training session.

I would like to express my sincere and deep sense of gratitude to **Ar. Sivashankar T S / Managing Partner/ Ela Green Buildings & Infrastructures Consultants Private Limited** for his valuable guidance, suggestions and constant encouragement paved way for the successful completion of my project work. My sincere thanks to **Ar. Sheetal Amraotkar** Professional Training Coordinator for her motivation and guidance.

I wish to express my thanks to all Teaching and Non-teaching staff members of the Department of Architecture who were helpful in many ways for the completion of the project.

Also thanks to Ar. Samhita Venkaatesh (Director), Ar. Visalakshi C (Sustainability Analyst), Ar. Niveditha Dileep (Project Manager) and Pruthviraj (Project Manager) from **Ela Green Buildings & Infrastructures Consultants Private Limited**.

JOINING LETTER



Ela Green Buildings
& Infrastructure
Consultants Pvt. Ltd.
Certification Training

1-12-2021

To

The Head of the Department

Sathyabama Institute of Science and Technology

Rajiv Gandhi Salai, Jeppiaar Nagar,

Chennai-600 119

Tamil Nadu.

Respected Sir/ Madam,

This to confirm that Deepika A (Reg no: 40890004) pursuing M.Arch - Sustainable Architecture (Batch 2020-2022) in Sathyabama Institute of Science and Technology, will be undergoing her internship at our firm from 01-12-2021 to 21-01-2022, for a period of 40 days.

Yours Sincerely,

For Ela Green Buildings & Infrastructure Consultants,

M. Samhita
Director

REPORT



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
Accredited with 'A' grade by NAAC
Jeppiaar Nagar, Rajiv Gandhi Salai, Chennai - 600 119.
Phone: 044 - 2450 3150 / 3151 / 3152 / 3154 / 3155 Fax: 044 - 2450 2344
www.sathyabama.ac.in



DEPARTMENT OF ARCHITECTURE
M. Arch (Sustainable Architecture)
Continuous Assessment Report for Professional training
(Continuous progress report of the trainee architect/Project Manager for the period of 30 working days in the office to be submitted to HOD by the Trainee attending the training session)

Name of the office / organization : Ela Green Buildings & Infrastructures

1. Consultants Private Limited

2. Address & Contact Number : Pallavaram, Chennai

3. Name of the student : A Deepika

4. Duration : From 3 Jan To __21.1.22

5. Total No. of days : 15 Days

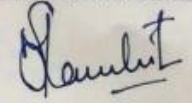
6. Evaluation of Performance criteria shall be on

* Note: Kindly grade the student as per his/her overall performance in the office during the assessment month; which will be converted to the allotted 200 marks by the department.

Description of works	Excellent	Good	Fair	Poor	NA
Understanding of office culture and methodology		8			
Active Participation in the Project activities		7			
Documentation and tracking of project		7			
Presentation Skills developed		7			
Understanding of construction details & techniques		8			
Participation and contribution in project meetings					NA
Understanding of codes and standards		7			
Schedule preparation & tracking activities					NA
Preparation / Management of drawings		8			
Learning / Application of software in Projects		7			
Preparation of concept for projects		7			
Site Management / Discussion with clients					NA
Overall Grading*	7.5				

(A - 8.0, B - 7.0, C - 6.0, D - 5.5, E - 5.0, F - <5)

7. Any other Remarks : _____

8. Signature of the Head of the Office / Organization (With Seal) : 



SATHYABAMA

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Continuous Assessment Report for Professional training
(Continuous progress report of the trainee architect/Project Manager for the period of 30 working days in the office to be submitted to HOD by the Trainee attending the training session)

Name of the office / organization : Ela Green Buildings & Infrastructures

1. Consultants Private Limited

2. Address & Contact Number : Pallavaram, Chennai

3. Name of the student : A Deepika

4. Duration : From 1.12.22 To __31.12.22

5. Total No. of days : 25 Days

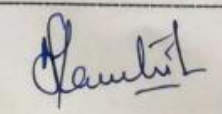
6. Evaluation of Performance criteria shall be on

* Note: Kindly grade the student as per his/her overall performance in the office during the assessment month; which will be converted to the allotted 200 marks by the department.

Description of works	Excellent	Good	Fair	Poor	NA
Understanding of office culture and methodology		8			
Active Participation in the Project activities		7			
Documentation and tracking of project		7			
Presentation Skills developed		7			
Understanding of construction details & techniques		8			
Participation and contribution in project meetings					NA
Understanding of codes and standards		7			
Schedule preparation & tracking activities					NA
Preparation / Management of drawings		8			
Learning / Application of software in Projects		7			
Preparation of concept for projects		7			
Site Management / Discussion with clients					NA
Overall Grading*	7.5				

(A - 8.0, B - 7.0, C - 6.0, D - 5.5, E - 5.0, F - <5)

7. Any other Remarks : _____

8. Signature of the Head of the Office / Organization (With Seal) : 

WORK DIARY

DATE	PROJECT NAME	WORK DONE
1 st – 3 rd Dec	Hospital - Vijayawada	Developed Sketchup Model – Radiation analysis in Formit and CFD analysis in Flowdesign
4 th – 9 th Dec	Hospital - Hubli	Developed Sketchup Model – Radiation analysis in Formit and CFD analysis in Flowdesign
9 th – 12 th Dec	Hospital – Kozhikode	Developed Sketchup Model – Radiation analysis in Formit and CFD analysis in Flowdesign
13 th – 14 th Dec	Metro Station - Bangalore	Developed Revit Model- Insight Lighting Analysis
15 th – 18 th Dec	Hospital – AIMMS Nagpur	Developed Sketchup Model – Radiation analysis in Formit and CFD analysis in Flowdesign
19 th – 21 st Dec	Hospital – Anantapur	Developed Sketchup Model – Radiation analysis in Formit
22 nd – 23 rd Dec	Hospital – Kozhikode	Worked in Landscape drawing
24 th – 27 th Dec	Warehouse	Developed Revit Model- Insight Lighting Analysis
28 th – 31 st Dec	Hospital – Vijayawada, Warangal	Artificial lighting excel work
3 rd – 5 th Jan	Hospital – Hubli	Artificial lighting simulation in dialux
6 th – 10 th Jan	Residential – Raheja Towers	Developed Revit Model- Insight Lighting Analysis
10 th – 12 th Jan	K.L University	Developed Revit Model- Insight Lighting Analysis
13 th – 17 th Jan	Hospital – Kozhikode	Artificial lighting zoning in dialux
18th – 21st Jan	Hospital – Allepey	Developed Ecotect model- Daylight Simulation

Consolidated Certificate (Experience)



Ela Green Buildings
& Infrastructure
Consultants Pvt. Ltd.
Certification Training

21-1-2022

To

The Head of the Department

Sathyabama Institute of Science and Technology

Rajiv Gandhi Salai, Jeppiaar Nagar,

Chennai-600 119

Tamil Nadu.

Respected Sir/ Madam,

This to inform that Deepika A (Reg no: 40890004) pursuing M.Arch - Sustainable Architecture (Batch 2020-2022) in Sathyabama Institute of Science and Technology, has completed her internship successfully at our firm from 01-12-2021 to 21-01-2022, for a period of 40 days.

Yours Sincerely,

For Ela Green Buildings & Infrastructure Consultants,

M. Samhita
Director



ELA GREEN BUILDINGS & INFRASTRUCTURES CONSULTANTS PRIVATE LIMITED

ABOUT

Ela Green Buildings & Infrastructures Consultants Private Limited founded in 2009, has grown to be one of the India’s leading Green Building Consultancy firms, providing sustainability solutions to a wide range of projects across commercial, residential, industrial, retail, hospitality and other sectors.

GREEN BUILDING CERTIFICATIONS

LEED Administered by USGBC, LEED is one of the most renowned green rating systems with global acclaim on its impact. 	IGBC The Indian Green Building Certification offers a gamut of certification for different project typologies to choose from. 	GRIHA GRIHA is an indigenous rating framework that provides performance comparison against national benchmarks. 	EDGE Designed to be extremely user-friendly, EDGE evaluates building performance and offers a dashboard view against various benchmarks. 	BEE STAR RATING Much like energy labels for appliances, BEE has introduced star rating for building based on annual energy performance. 
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INTEGRATED APPROACH

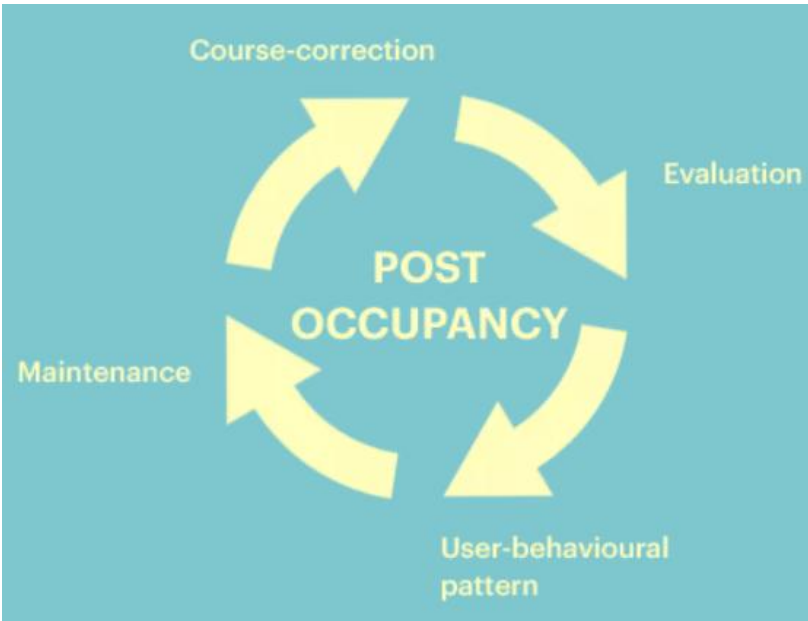
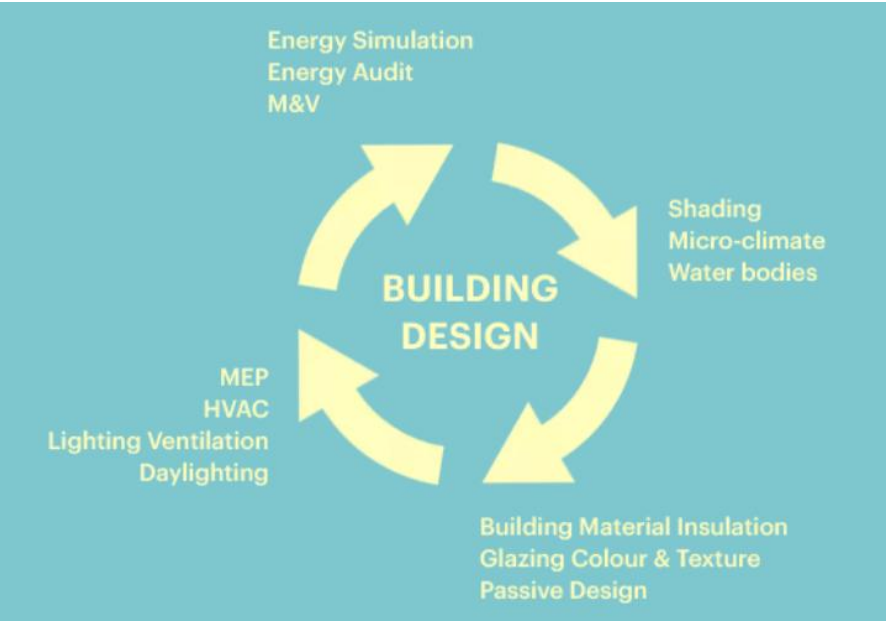


TABLE OF CONTENTS

CH NO.	TITLE	PG.NO.
1	METRO BANGALORE	11
2	RESIDENCE – RAHEJA TOWER E	12
3	HOSPITAL - ALLEPEY	13
4	HOSPITAL - VIJAYAWADA	14

IGBC GREEN MASS RAPID TRANSIT SYSTEM (MRTS) RATING

INDOOR ENVIRONMENT & COMFORT - CREDIT 6

DAYLIGHTING

Ensure adequate daylighting to improve visual comfort and connectivity with the outdoor environment.

REQUIREMENT:

Demonstrate that the project achieves atleast 75% of daylight in all occupied areas such as concourse and platform areas.

APPLICABILITY:

Elevated and At grade stations

S.NO	SPACE	REGULAR OCCUPIED SPACE AREA (m2)	% of AREA MEETING
CONCOURSE LEVEL			
1	CONCOURSE, TICKET COUNTER 1,2 & SECURITY	3676	75%
PLATFORM LEVEL			
2	PLATFORM	3508	100%

Total Floor Area - 7184 m²
Daylight Area - 6250 m²
% of daylight passing area - 87.5 %

CONCOURSE LEVEL

Lighting Analysis - Results Summary

Custom Analysis
For all Rooms Included in Daylighting

Total Both - 72% Passing
28% either time below threshold
0% either time above threshold

3:00 pm - 72% Passing
September 21
GHI: 221, DNI: 390, DHI: 55
28% below threshold
0% above threshold w/o shades

3:00 pm - 72% Passing
September 21
GHI: 221, DNI: 390, DHI: 55
28% below threshold
0% above threshold w/o shades

PLATFORM LEVEL

Lighting Analysis - Results Summary

Custom Analysis
For all Rooms Included in Daylighting

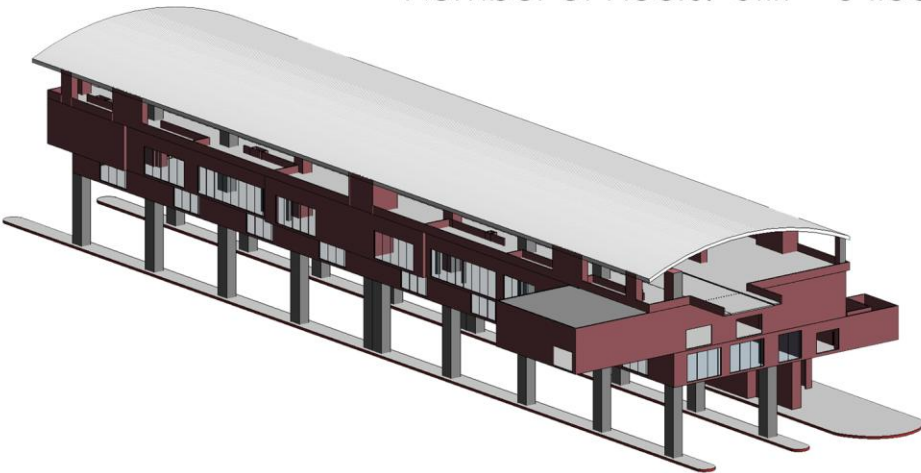
Total Both - 100% Passing
0% either time below threshold
0% either time above threshold

3:00 pm - 100% Passing
September 21
GHI: 273, DNI: 483, DHI: 68
0% below threshold
0% above threshold w/o shades

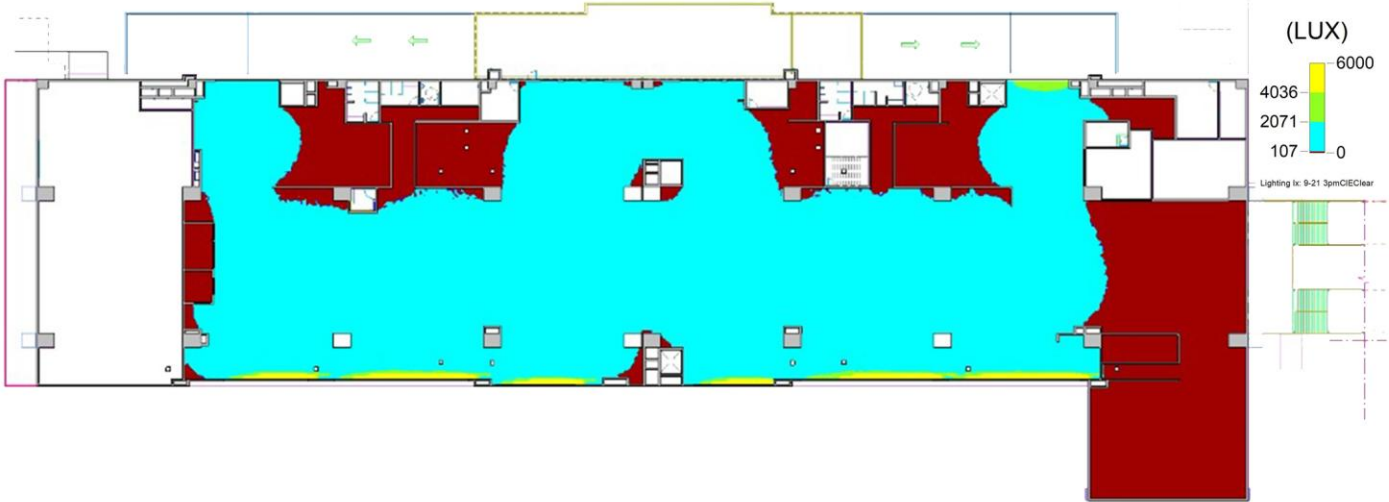
3:00 pm - 100% Passing
September 21
GHI: 273, DNI: 483, DHI: 68
0% below threshold
0% above threshold w/o shades

ELECTRONIC CITY – 2 METRO STATION

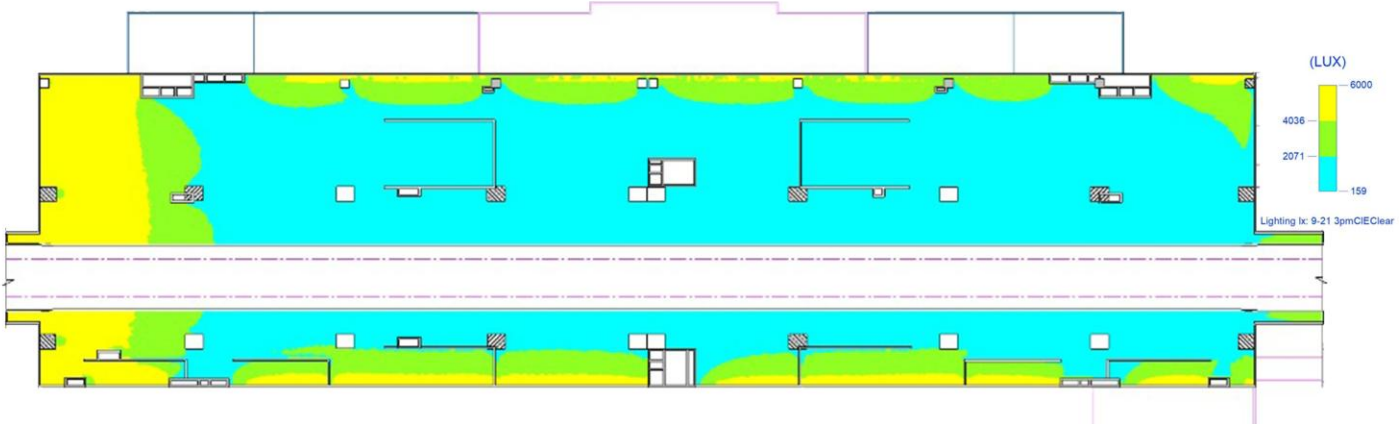
Location: Bangalore, Karnataka
Space Usage : Metro Station
Number of Floors: Stilt + 3 floors



CONCOURSE LEVEL



PLATFORM LEVEL



The result shows that the 87.5% of the regularly occupied spaces are meeting the minimum illuminance of 110 lux. Thus, the project is applicable for 1 point as under the credit.

RESIDENT HEALTH & WELLBEING

RHW MANDATORY REQUIREMENT 1 - MINIMUM DAYLIGHTING

Design habitable spaces to have access to natural daylight, thereby enhancing the quality of life of the occupants.

REQUIREMENT:

Demonstrate through computer simulation that **50% of the regularly occupied spaces**, in each dwelling unit, achieve daylight illuminance levels of a minimum of 10 foot-candles (fc) (110 lux) in a clear sky condition on 21 st September at 12 noon, at working plane.

Calculation of window-to-wall ratio				
Orientation	Opening name	Opening area (m2)	No. of openings	Total opening area (m2)
North	W2	1.8	96	172.8
North	W3	0.9	96	86.4
South	W2	11.8	48	566.4
South	W3	0.9	48	43.2
South	KW2	0.675	48	32.4
East	KW1	0.81	48	38.88
East	W2	1.8	48	86.4
East	SD	4.28	48	205.44
West	W2	1.8	96	172.8
West	SD	4.28	48	205.44
Total				1610.16

Envelope areas of the building				
Orientation	Total wall length (m), exposed to ambient	Total wall height (m), exposed to ambient	Total no. of floors	Envelope area (m2)
North	85.67	3	12	3084.12
South	85.67	3	12	3084.12
West	43.82	3	12	1577.52
East	43.82	3	12	1577.52
Envelope area (m 2)				9323.28

WWR= Total Opening Area /Total Envelope Area =	1610.16	0.172703169
	9323.28	

LIGHTING ANALYSIS

Custom Analysis
For all Rooms Included in Daylighting

12:00 pm - 64% Passing
September 21
GHI: 830, DNI: 824, DHI: 89
36% below threshold
0% above threshold w/o shades

TYPICAL FLOOR PLAN

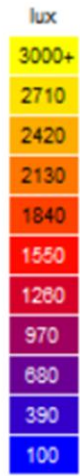


The result shows that the 63% of the regularly occupied spaces are meeting the minimum illuminance of 110 lux. Thus, the project acheives mandatory requirement with minimum daylight.

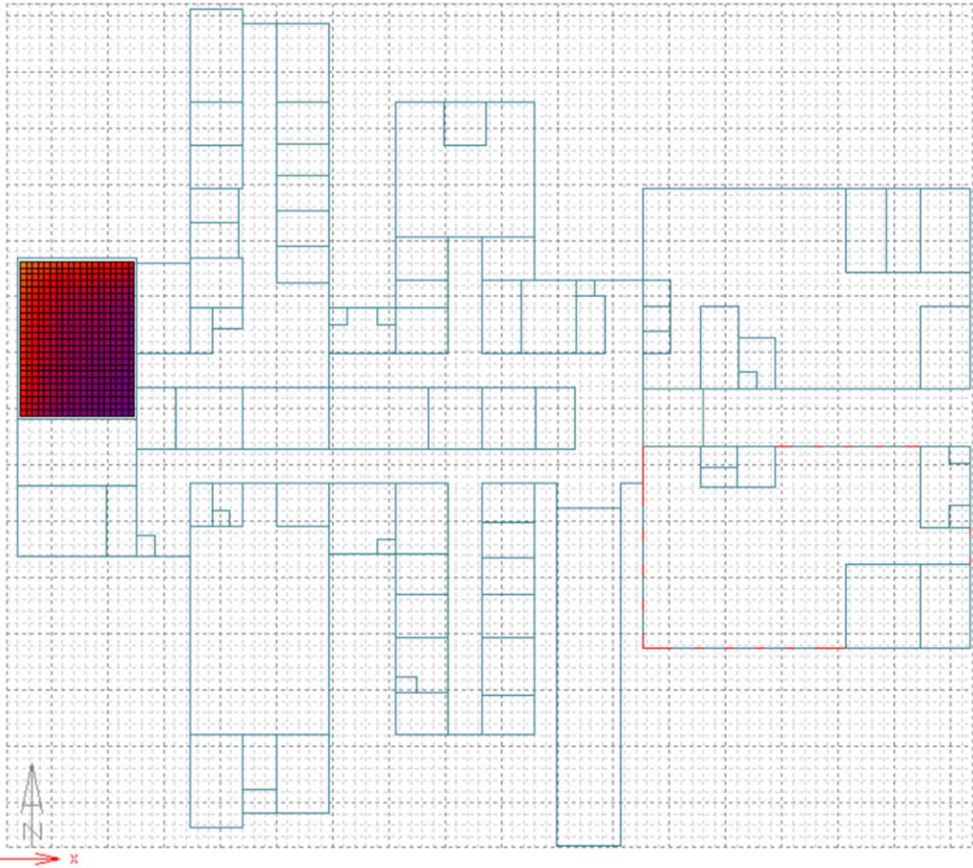
DAYLIGHTING ANALYSIS

Second Floor							
S.no	Spaces	Area (sq.m)	Average Lux	Design Sky Lux	Achieved DF	Required DF	Area Achieving desired Df (sq.m)
1	Change Room	5.71	6.9	9000	0.08	1.9	0
2	Clean Linen	12.2	7.51	9000	0.08	1.9	0
3	Conference Hall	152.94	1181.44	9000	13.13	1.9	152
4	Consultation 01	15.05	102.89	9000	1.14	1.9	0
5	Consultation 02	15.05	108.02	9000	1.20	1.9	0
6	Consultation 03	14.51	108.51	9000	1.21	1.9	0
7	Consultation 04	13.53	115.66	9000	1.29	1.9	0
8	Consultation 05	13.03	129.26	9000	1.44	1.9	0
9	Corridor 01	415.13	58.39	9000	0.65	0.313	415.13
10	Corridor 02	176.23	84.66	9000	0.94	0.313	176.23
11	CU 01	5.98	0	9000	0.00	1.9	0
12	CU 02	5.41	0	9000	0.00	1.9	0
13	Demo Room 01	20.83	69.21	9000	0.77	1.9	0
14	Demo Room 02	27.83	183.01	9000	2.03	1.9	27.83
15	Doctors Lift Lobby	31.96	94.72	9000	1.05	0.313	31.96
16	DU 01	4.98	145.96	9000	1.62	1.9	0
17	DU 02	6.43	259.84	9000	2.89	1.9	6.43
18	DU 03	5.99	222.35	9000	2.47	1.9	5.99
19	DU 04	4.88	0	9000	0.00	1.9	0
20	Duty Doctors Room 01	17.75	96.96	9000	1.08	1.9	0
21	Duty Doctors Room 02	17.84	81.2	9000	0.90	1.9	0
22	Duty Doctors Room 03	35.81	123	9000	1.37	1.9	0
23	Duty Nurses Room 01	12.77	118.04	9000	1.31	1.9	0
24	Duty Nurses Room 02	25.75	105.34	9000	1.17	1.9	0
25	Duty Nurses Room 03	12.15	96.92	9000	1.08	1.9	0
26	Duty Nurses Room 04	19.36	117.48	9000	1.31	1.9	0
27	Duty Nurses Room 05	8.33	93.57	9000	1.04	1.9	0
28	Faculty Room 01	16.41	122.69	9000	1.36	1.9	0
29	Faculty Room 02	23.84	97.28	9000	1.08	1.9	0
30	Faculty Room 03	17.48	143.73	9000	1.60	1.9	0
31	Faculty Room 04	20.33	125.11	9000	1.39	1.9	0
32	Haemodialysis Unit	363.49	147.66	9000	1.64	1.25	363.49
33	Lift Lobby	32.39	236.4	9000	2.63	0.313	32.39
34	Lobby	62.45	522.61	9000	5.81	0.313	62.45
35	Nephrology Ward	382.23	127.65	9000	1.42	1.25	382.23
36	Neurology Bio Chem. Lab	17.84	136.61	9000	1.52	2.5	0
37	Neurology Physio. Lab	16.61	103.58	9000	1.15	2.5	0
38	Neurology Ward	239.6	176.46	9000	1.96	1.25	239.6
39	Peritoneal Dialysis Room	133.5	75.46	9000	0.84	1.25	0
40	Positive Room	18.98	0	9000	0.00	1.9	0
41	Procedure Room 01	17.94	155.62	9000	1.73	1.9	0
42	Procedure Room 02	18.24	154.55	9000	1.72	1.9	0
43	Procedure Room 03	17.56	136.91	9000	1.52	1.9	0
44	Procedure Room 04	32.67	92.62	9000	1.03	1.9	0
45	Seminar hall	53.41	1521.9	9000	16.91	1.9	53.41
46	Staff / Inpatients Lift Lobby	26.13	250.17	9000	2.78	0.313	26.13
47	Thrombolysis	29.46	0	9000	0.00	2.5	0
48	Treatment Room	17.82	0	9000	0.00	2.5	0
GRAND TOTAL		2655.81					1975.27

Daylight Analysis
Daylighting Levels
Value Range: 100 - 3000 lux
© ECOTECT v5

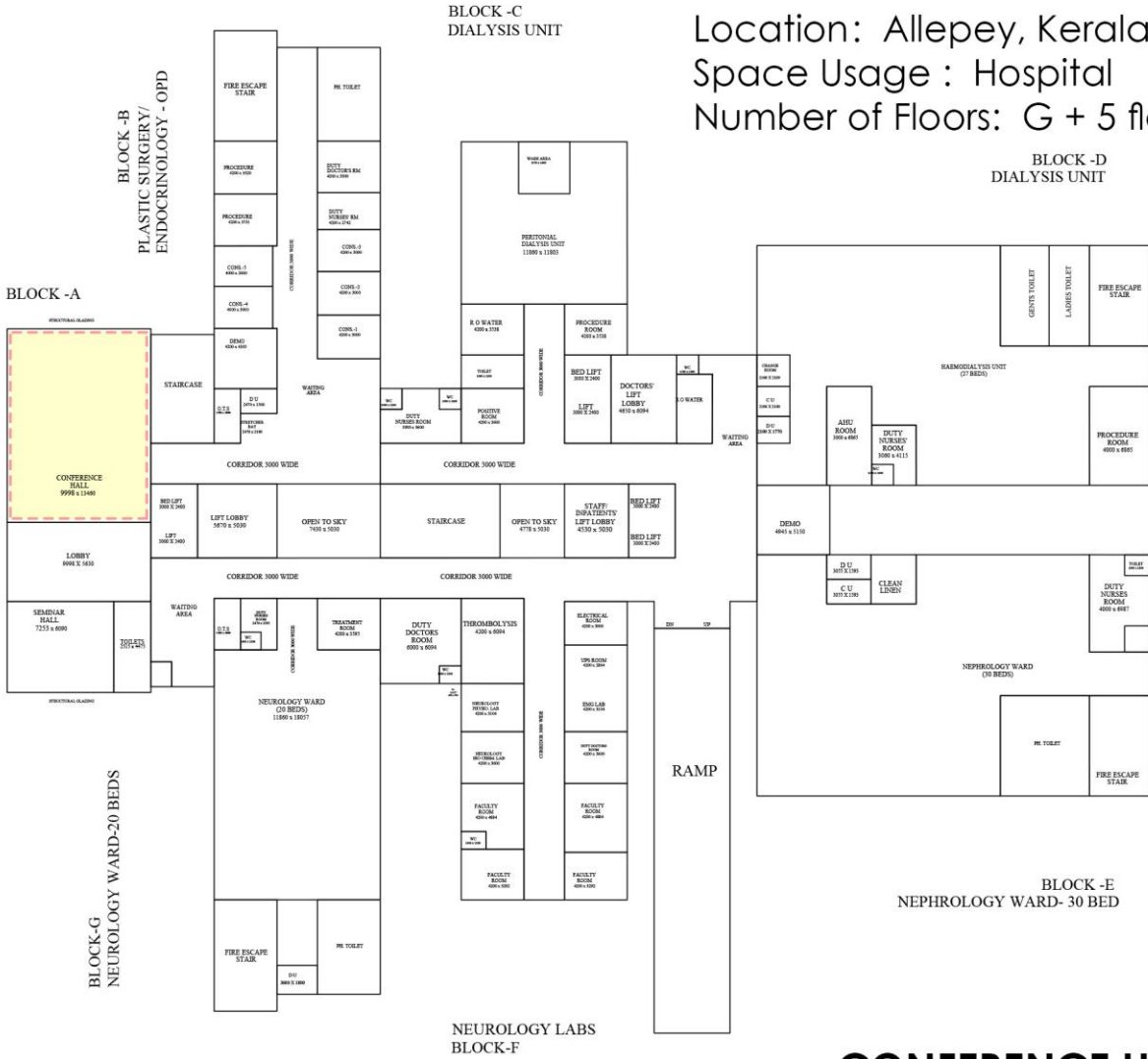


Average Value: 1181.44 lux
Visible Nodes: 500



HOSPITAL

Location: Allepey, Kerala
Space Usage : Hospital
Number of Floors: G + 5 floors



CONFERENCE HALL

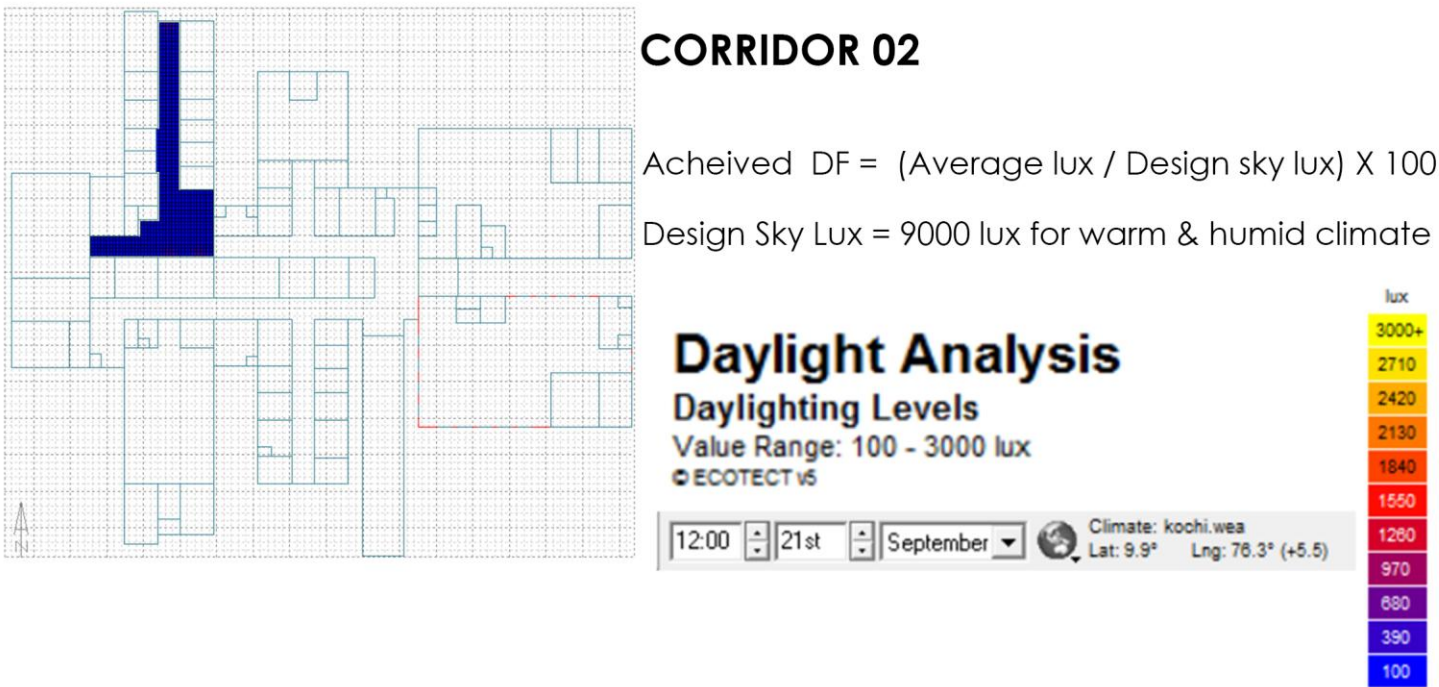
DAYLIGHTING ANALYSIS

Second Floor							
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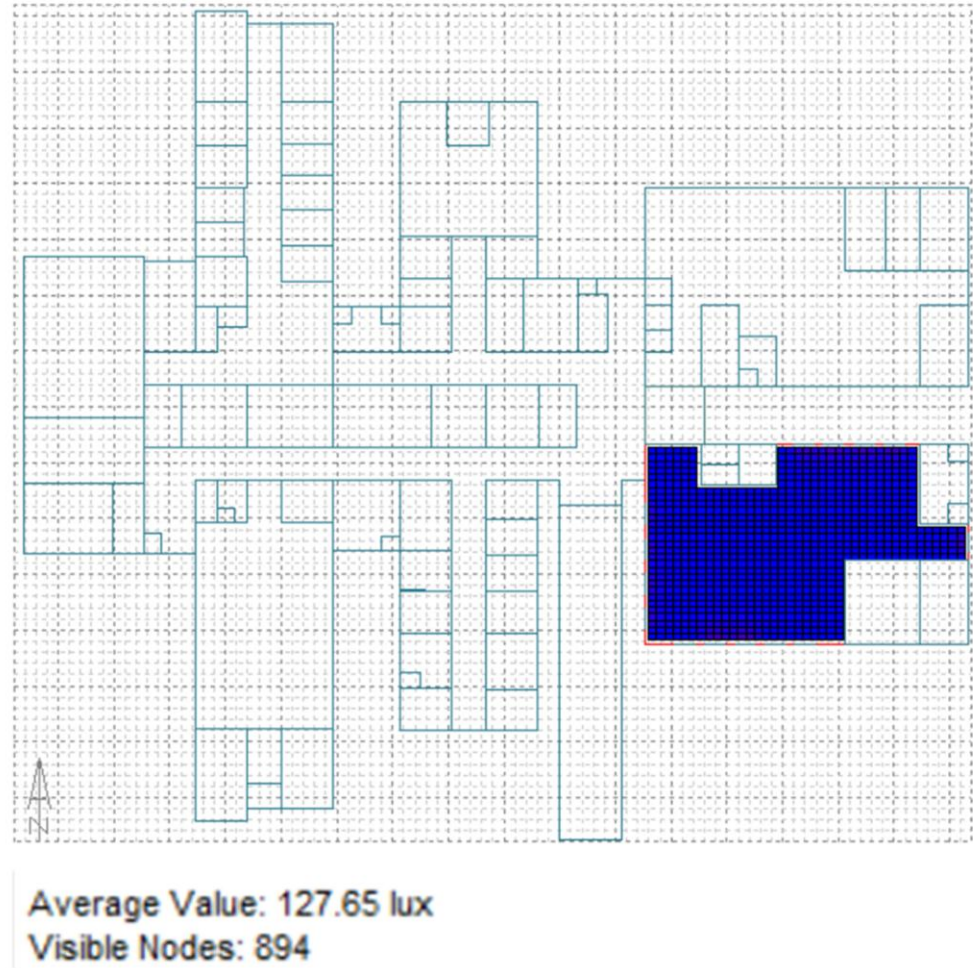
HOSPITAL - ALLEPPEY

CORRIDOR 02

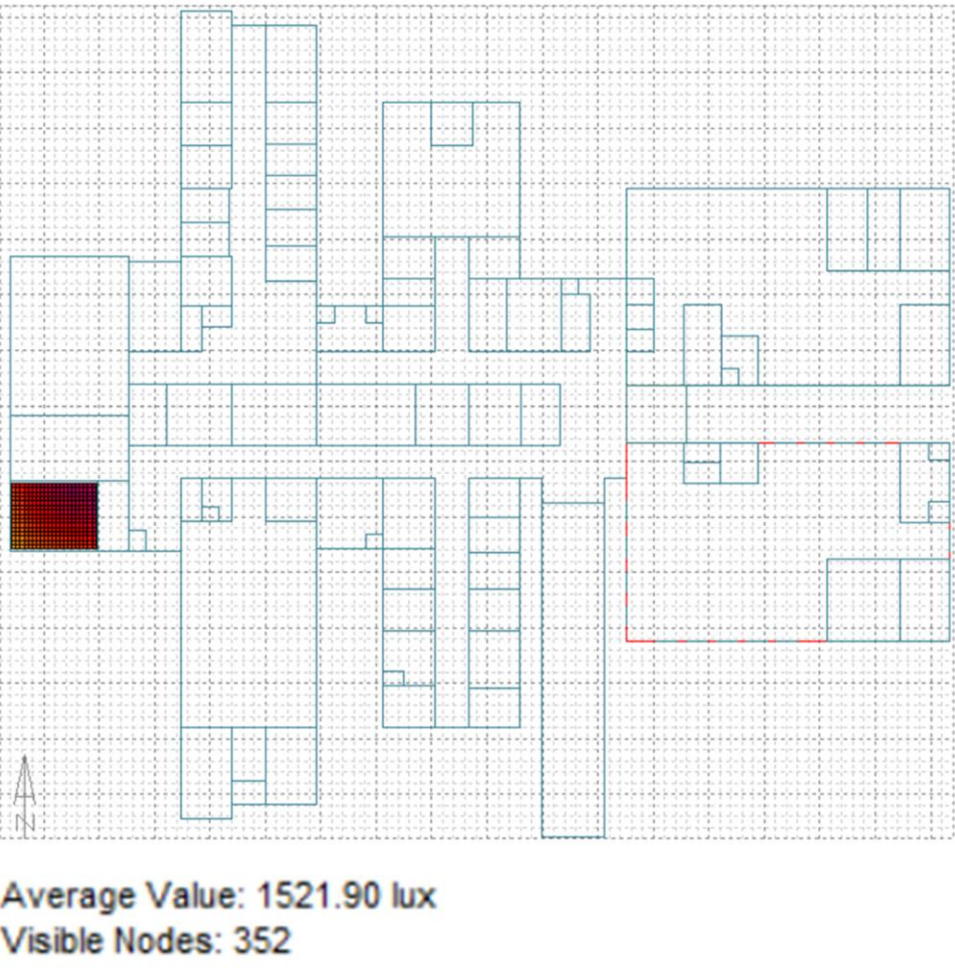
Acheived DF = (Average lux / Design sky lux) X 100
Design Sky Lux = 9000 lux for warm & humid climate



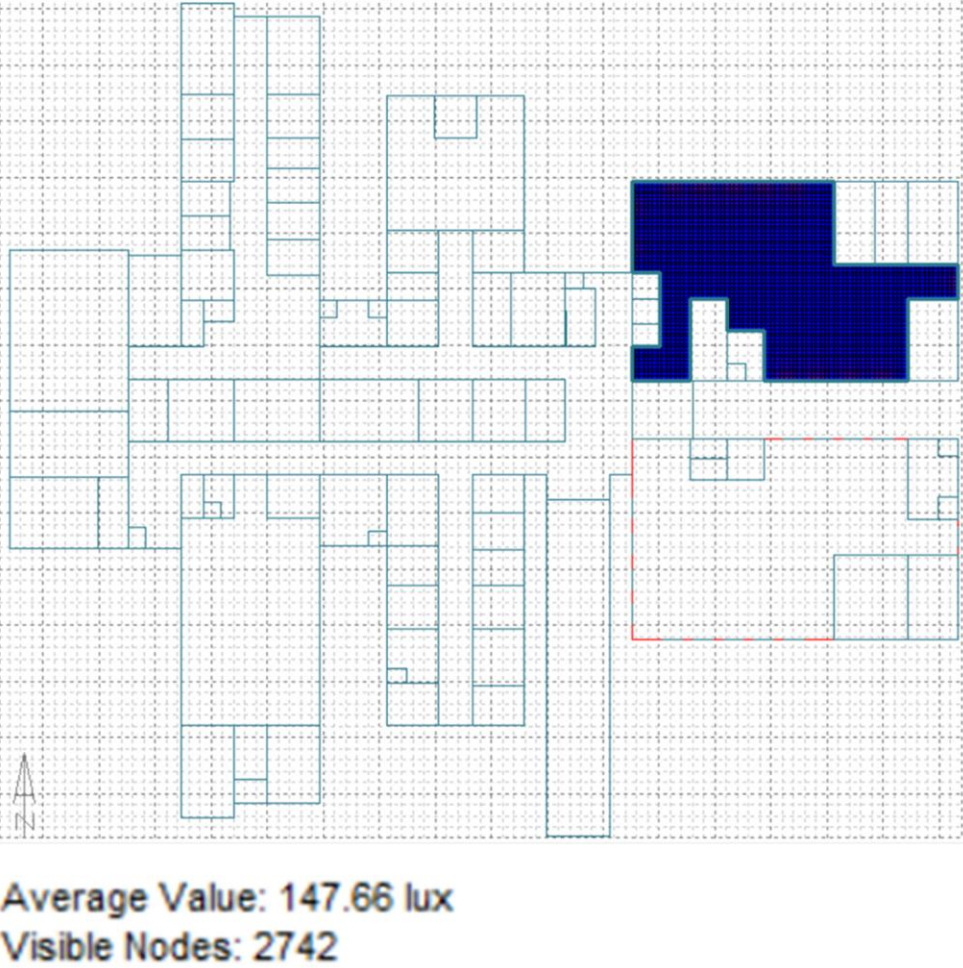
NEPHROLOGY WARD



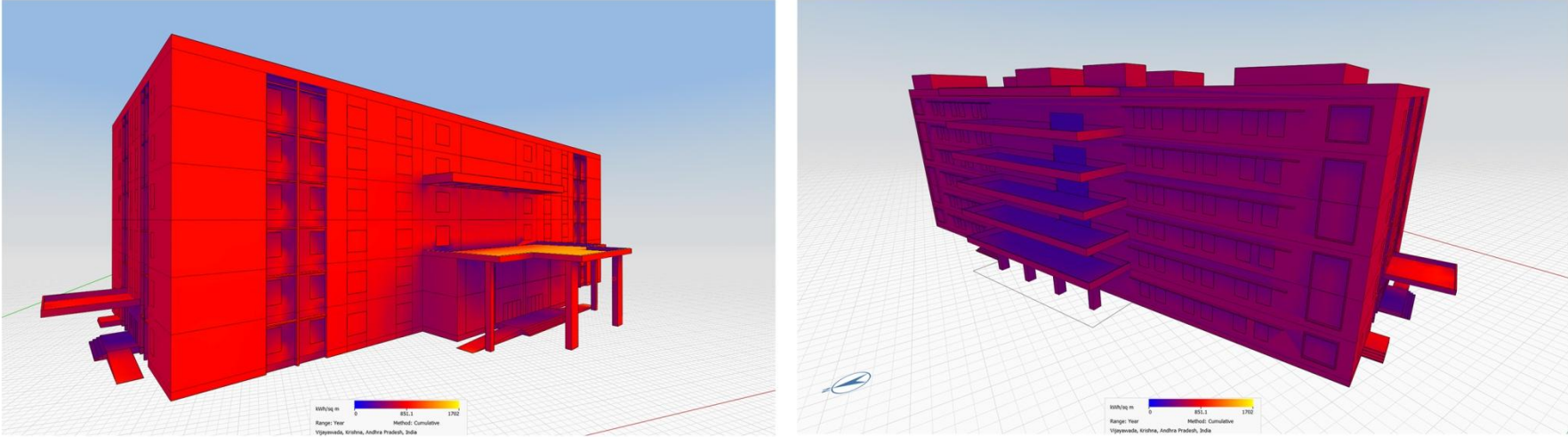
SEMINAR HALL



HAEMODIALYSIS UNIT

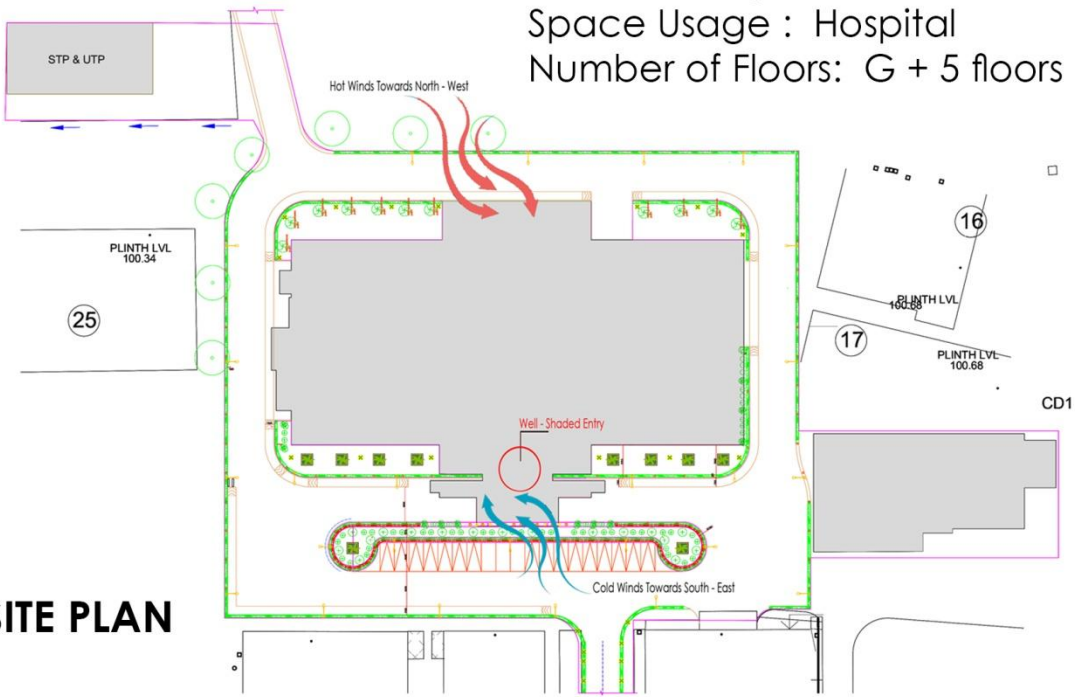


RADIATION ANALYSIS



SSB VIJAYAWADA - HOSPITAL

Location: Vijayawada, Andhra Pradesh
Space Usage : Hospital
Number of Floors: G + 5 floors



ANNUAL RADIATION RANGE

DESIGN CASE	NORTH FACADE		SOUTH FACADE		WEST FACADE		EAST FACADE	
	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest
Ground Floor	318 kwh/ sqm	147.5 kwh/ sqm	874.6 kwh/ sqm	299.4 kwh/ sqm	551.2 kwh/ sqm	172.1 kwh/ sqm	874.5 kwh/ sqm	169.6 kwh/ sqm
First Floor	318 kwh/ sqm	171.9 kwh/ sqm	877.9 kwh/ sqm	285.6 kwh/ sqm	552.5 kwh/ sqm	189 kwh/ sqm	874.5 kwh/ sqm	171.4 kwh/ sqm
Second Floor	317 kwh/ sqm	174.1 kwh/ sqm	884 kwh/ sqm	293.6 kwh/ sqm	552.5 kwh/ sqm	192.8 kwh/ sqm	874.5 kwh/ sqm	176.5 kwh/ sqm
Third Floor	317 kwh/ sqm	187.9 kwh/ sqm	885 kwh/ sqm	291.7 kwh/ sqm	552.5 kwh/ sqm	205.3 kwh/ sqm	874.5 kwh/ sqm	179.8 kwh/ sqm
Fourth Floor	317 kwh/ sqm	188.4 kwh/ sqm	886.2 kwh/ sqm	305.3 kwh/ sqm	552.5 kwh/ sqm	207.9 kwh/ sqm	874.5 kwh/ sqm	184.6 kwh/ sqm
Fiveth Floor	318 kwh/ sqm	196.3kwh/ sqm	886 kwh/ sqm	626.7 kwh/ sqm	552.5 kwh/ sqm	210 kwh/ sqm	874.5 kwh/ sqm	147 kwh/ sqm

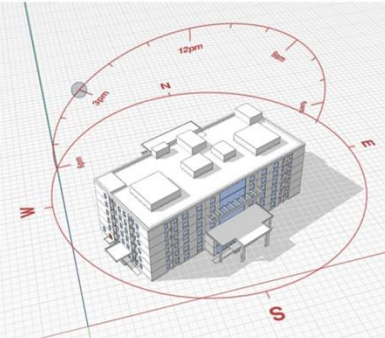
BASE CASE	NORTH FACADE		SOUTH FACADE		WEST FACADE		EAST FACADE	
	Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest
All Floors	319.1 kwh/ sqm	-	885.9 kwh/ sqm	-	552.5 kwh/ sqm	-	874.5 kwh/ sqm	-

SUNPATH ANALYSIS

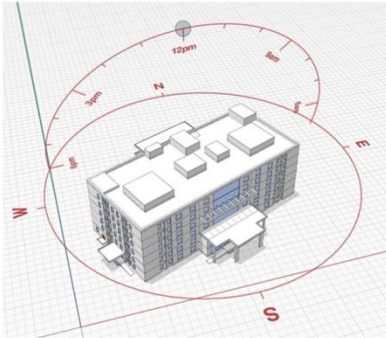
DESIGNCASE

SOUTH WEST VIEW

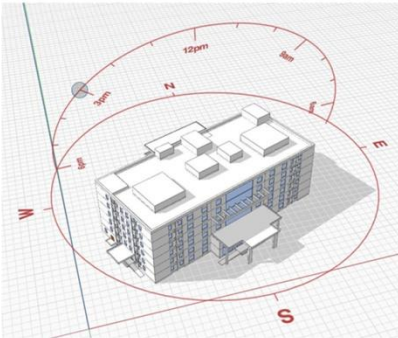
9 AM



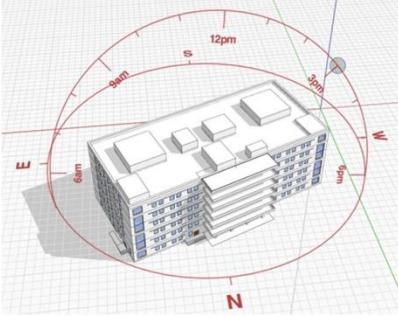
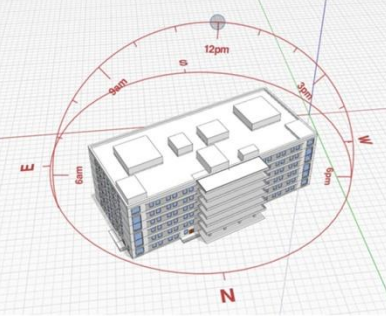
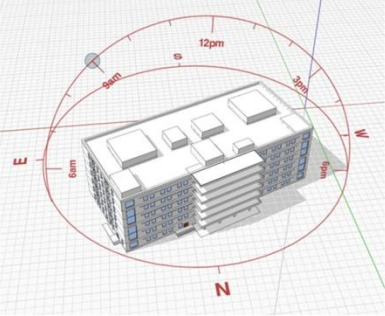
12 PM



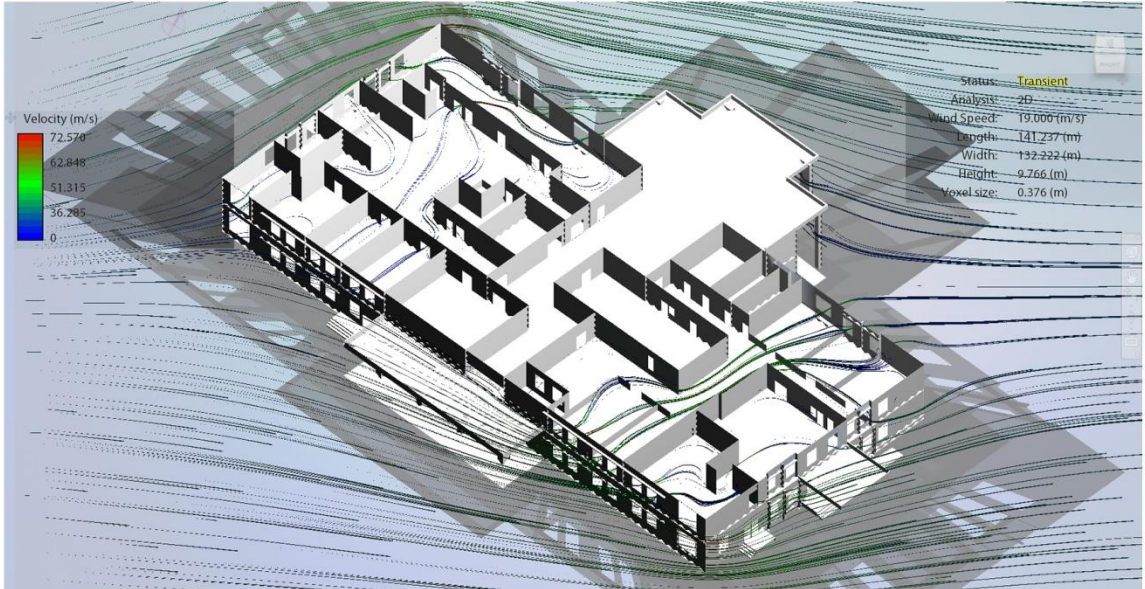
3 PM



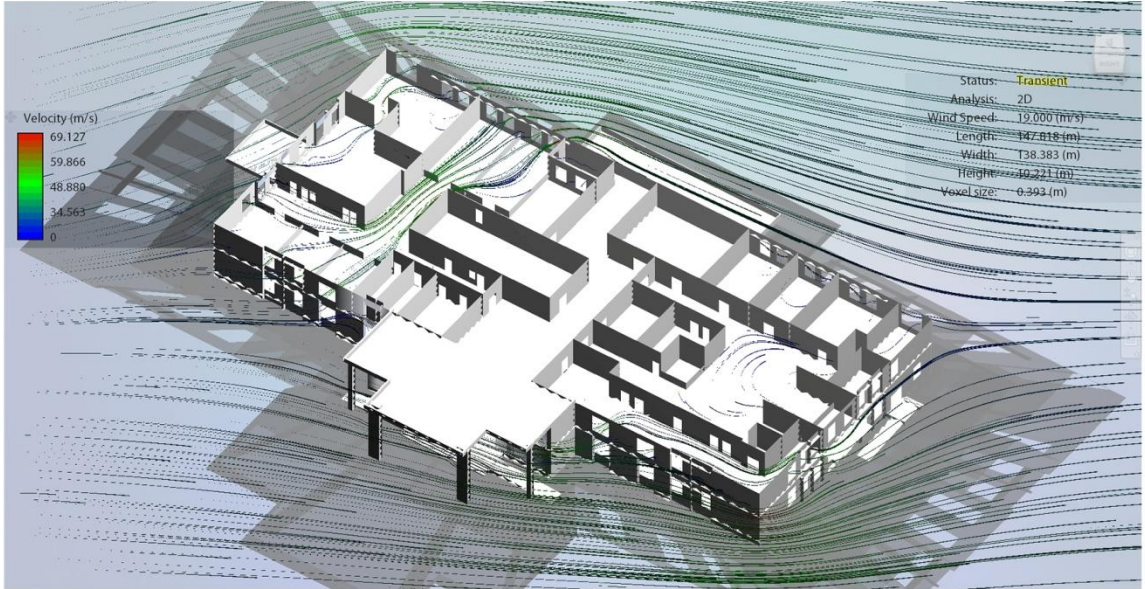
NORTH EAST VIEW



SITE PLAN

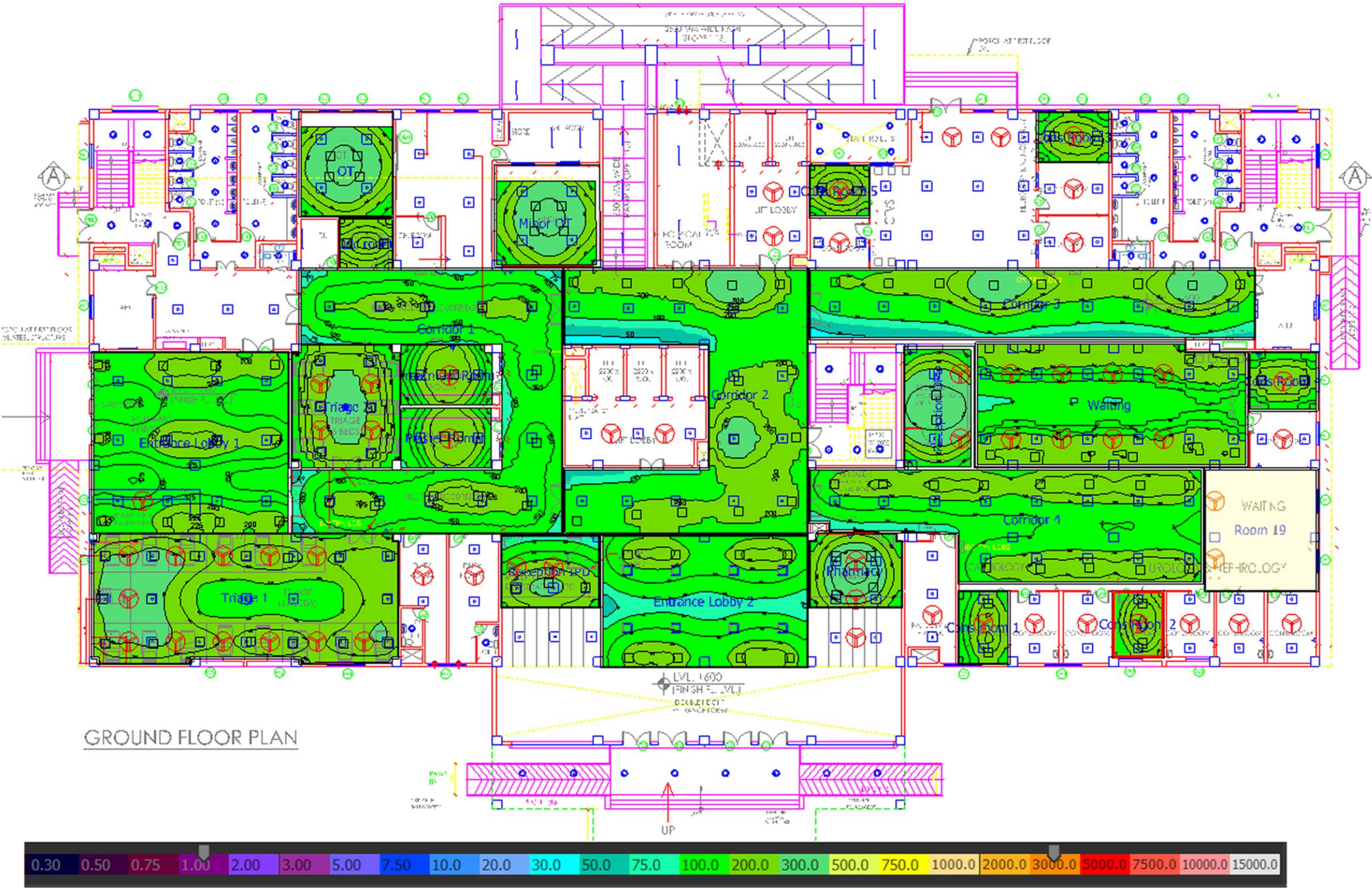


NORTH WEST WINDFLOW



SOUTH EAST WINDFLOW

ARTIFICIAL LIGHTING ANALYSIS

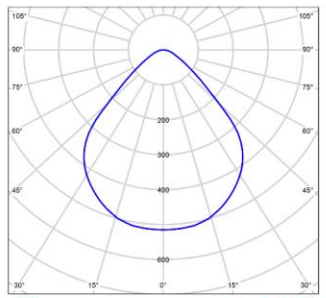


GROUND FLOOR LIGHTING PLAN

PRODUCT DETAILS

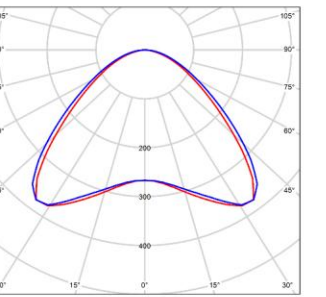
Philips - BBS560 AC-MLO-C LED35S/- No

P	39.0 W
Φ _{Lamp}	3500 lm
Φ _{Luminaire}	3498 lm
η	99.95 %
Luminous efficacy	89.7 lm/W
CCT	3000 K
CRI	100

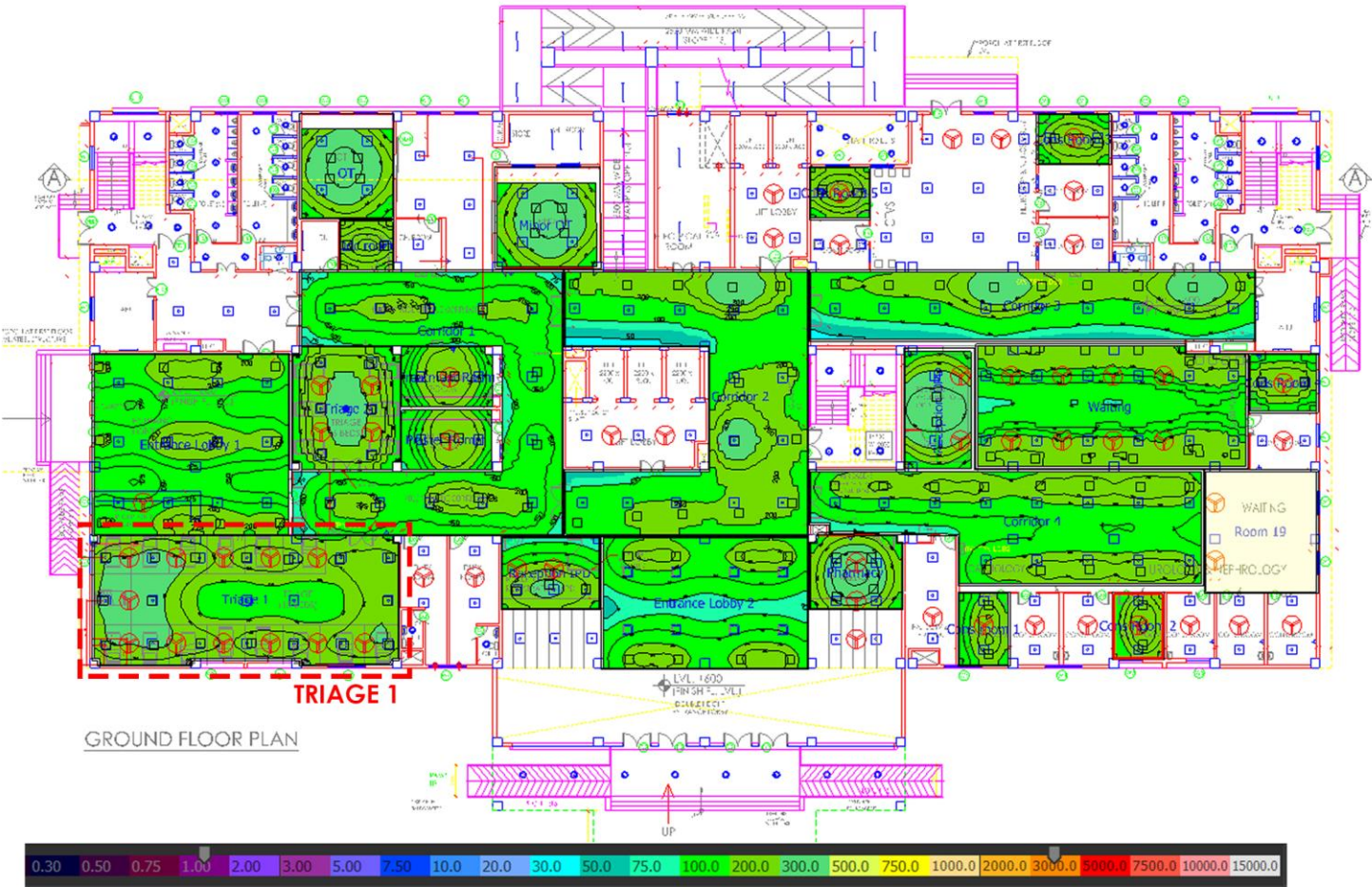


Philips - RC660B W60L60 MO-PC LED44S/- No

P	42.5 W
Φ _{Lamp}	4400 lm
Φ _{Luminaire}	4400 lm
η	100.00 %
Luminous efficacy	103.5 lm/W
CCT	3000 K
CRI	100



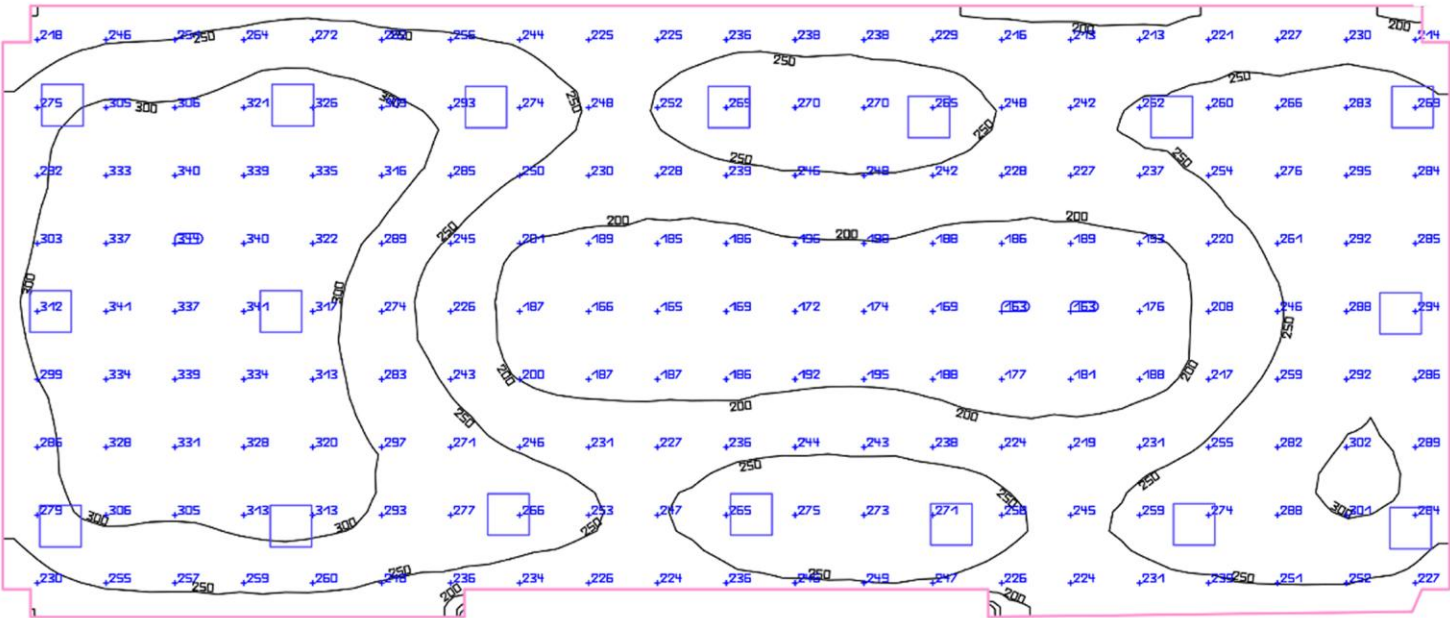
ARTIFICIAL LIGHTING ANALYSIS



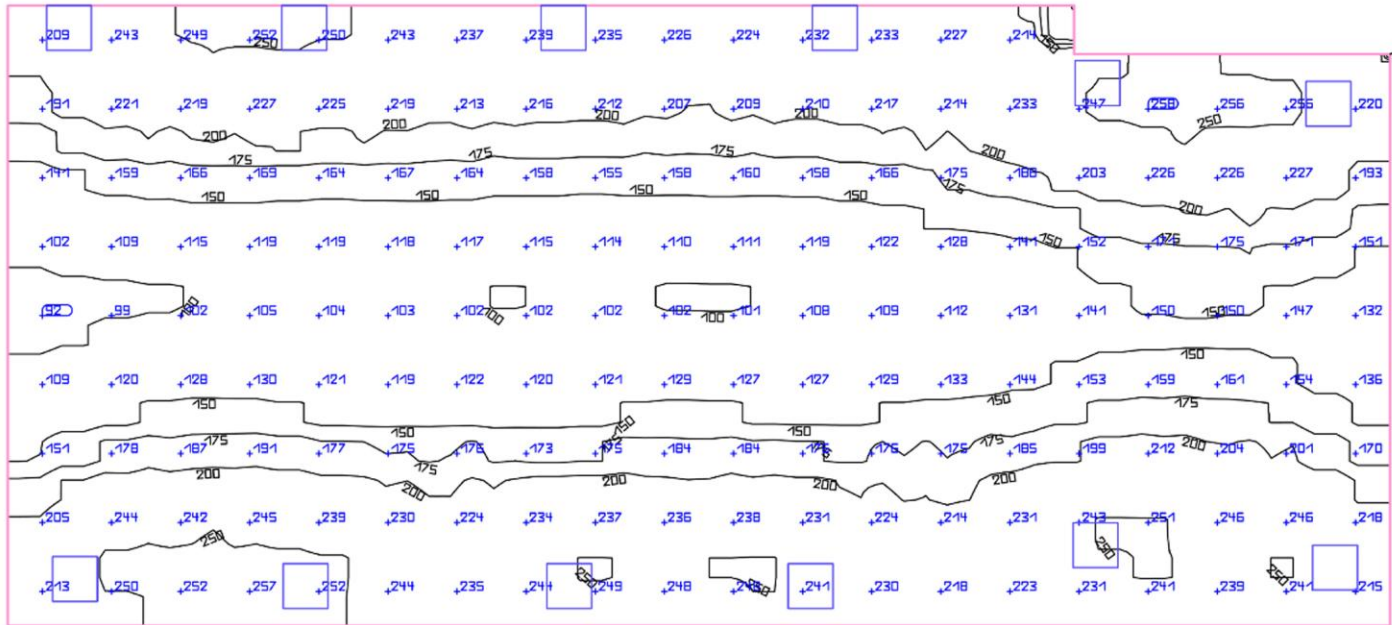
TRIAGE 1

P _{total}	A _{Room}	Lighting power density	E _{perpendicular} (Working plane)
663.0 W	154.27 m ²	4.30 W/m ² = 1.69 W/m ² /100 lx (Room)	255 lx

pcs.	Manufacturer	Article No.	Article name	P	Φ _{Luminaire}
17	Philips	BBS560 AC-MLO-C LED35S/-	No	39.0 W	3498 lm



WAITING AREA



Φ _{total}	P _{total}	Luminous efficacy
41976 lm	468.0 W	89.7 lm/W

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
12	Philips	BBS560 AC-MLO-C LED35S/-	No	39.0 W	3498 lm	89.7 lm/W

TRIAGE 1

Triage 1		
Working plane (Triage 1)		
	255 lx	0.44
Working plane (Perpendicular illuminance)		
	Actual	Target
Average	255 lx	≥ 500 lx
Min	113 lx	-
Max	346 lx	-
Min/average	0.44	-
Min/max	0.33	-
Parameter		
Height	0.800 m	

WAITING AREA

Waiting		
Working plane (Waiting)		
	185 lx	0.48
Working plane (Perpendicular illuminance)		
	Actual	Target
Average	185 lx	≥ 500 lx
Min	89.0 lx	-
Max	259 lx	-
Min/average	0.48	-
Min/max	0.34	-
Parameter		
Height	0.800 m	

THANK YOU