



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)

Accredited with "A" grade by NAAC | 12B Status by UGC | Approved by AICTE

Jeppiaar Nagar, Rajiv Gandhi Salai, Chennai – 600 119

www.sathyabama.ac.in

SCHOOL OF BUILDING AND ENVIRONMENT
DEPARTMENT OF ARCHITECTURE
PRACTICAL TRAINING PORTFOLIO (SAR4063)
DEC 2022

Name of the Student	:	Gannapaneni sai vineela	Batch	:	2018 - 2023
Reg No.	:	38210027	Semester	:	X



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VIVA-VOCE EXAMINATION

This is to certify that the practical training SAR 4063 is the work of Gannapaneni Sai Vineela who had undergone training in L&T constructions, Manapakkam, Chennai has been monitored by the continuous assessment during NOVEMBER 2022 to MAY 2023

Gannapaneni Sai Vineela

Submitted for Viva voce Examination held on 08-June-2023

Internal
Internal Examiner

Ahr 8/6/23
External Examiner





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DECLARATION

I Gannapaneni Sai Vineela hereby declare that the Training report **NOVEMBER 2022 to MAY 2023** done by me under the guidance of AR. Mr. NAGALINGAM is submitted in partial fulfillment of the requirements for the composition of practical training session.

DATE : 06 - JUNE - 2023

PLACE : CHENNAI

Sai Vineela

Signature of the candidate



ACKNOWLEDGEMENT

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

I convey my thanks to **Dr. Devyani Gangopadhyay**, Dean, School of Building and Environment and **Ar. Sarath Chandra Kanthi**, Design Chair, Department of Architecture for having been a constant source of support and encouragement.

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

I also wish to thank **Ar. Mr. Nagalingam**, for experience of internship at their firm.

B&F IC/EDRC-HR/Training/ 652-2022

16 November 2022

Head of the Department,
Department of Architecture
Sathyabama University,
Chennai – 600119.

Dear Sir/Madam,

Sub: Project Training

This has reference to your letter dated 16 November 2022 regarding Project Training for your student **Ms. GANNAPANENI SAI VINEELA (38210027)**. As a special case, we agree to admit her for project Training from **16 November 2022 to 1 April 2023**.

Please advise her to carry 3 Passport size photographs, copy of her College ID card and Adhaar card copy while reporting for the project training.

Please note that:

- she has to undergo the training without any financial commitment to our Company and fully at her own risk and responsibility.
- she must strictly comply with safety & other rules applicable at the project site/Office.
- she will be awarded her Project Training completion certificate on submission of the Project Report.

Thanking You,

**Yours faithfully,
For LARSEN & TOUBRO LIMITED**



**SUNEET KUMAR
DGM - HUMAN RESOURCES**

Registered Office: L&T House, N. M. Marg, Ballard Estate, Mumbai - 400 001. INDIA
Licence No.: CIN - L99999MH1946PLC004768

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PROFESSIONAL PRACTICAL TRAINING REPORT 2023

(Monthly Progress to be documented and submitted to the HOD by the Architect in charge of Trainee of the Organization)

- Name of the Office / Organization : L&T CONSTRUCTIONS
- Address & Contact Number : MANAPAKKAM, CHENNAI - 9840130379
- Name of the Student : GANJAPANEENI SAI VINHEELA
- Duration : From 01 DEC 2022 To 31 DEC 2022
- Total No. of days : 23 DAYS
- Evaluation of Performance Criteria shall be on

Description of works	Excellent	Good	Fair	Poor	NA
Office Culture Comprehension	✓				
Participation in the Office	✓				
Reading of Drawings		✓			
Presentation Techniques		✓			
Model Making		✓			
Understanding of Construction Details		✓			
Drafting Skills (Manual/Computer)		✓			
Site Supervision / Client Interaction Skills					
Time Schedule Adherence	✓				
Other Computer Skills	✓				
Files and Office Maintenance	✓				
Coordination with other Consultants					
Overall Grading*		<u>90</u>			

* Note: Kindly grade the student as per his/her overall performance in the office during the assessment month*

7. Any other Remarks:

Signature of the Head of the Office / Organization (With Seal)



PROFESSIONAL PRACTICAL TRAINING REPORT 2023

(Monthly Progress to be documented and submitted to the HOD by the Architect in charge of Trainee of the Organization)

- Name of the Office / Organization : L&T CONSTRUCTIONS
- Address & Contact Number : MANAPAKKAM, CHENNAI - 9840130379
- Name of the Student : GANJAPANEENI SAI VINHEELA
- Duration : From 01 JAN 2023 To 31 JAN 2023
- Total No. of days : 19 DAYS
- Evaluation of Performance Criteria shall be on

Description of works	Excellent	Good	Fair	Poor	NA
Office Culture Comprehension	✓				
Participation in the Office	✓				
Reading of Drawings	✓				
Presentation Techniques	✓				
Model Making		✓			
Understanding of Construction Details		✓			
Drafting Skills (Manual/Computer)		✓			
Site Supervision / Client Interaction Skills					
Time Schedule Adherence	✓				
Other Computer Skills	✓				
Files and Office Maintenance	✓				
Coordination with other Consultants		✓			
Overall Grading*		<u>90</u>			

* Note: Kindly grade the student as per his/her overall performance in the office during the assessment month*

7. Any other Remarks:

Signature of the Head of the Office / Organization (With Seal)



PROFESSIONAL PRACTICAL TRAINING REPORT 2023

(Monthly Progress to be documented and submitted to the HOD by the Architect in charge of Trainee of the Organization)

- Name of the Office / Organization : L&T CONSTRUCTIONS
- Address & Contact Number : MANAPAKKAM, CHENNAI - 9840130379
- Name of the Student : GANJAPANEENI SAI VINHEELA
- Duration : From 01-MAR-2023 To 31-MAR-2023
- Total No. of days : 25 DAYS
- Evaluation of Performance Criteria shall be on

Description of works	Excellent	Good	Fair	Poor	NA
Office Culture Comprehension	✓				
Participation in the Office	✓				
Reading of Drawings		✓			
Presentation Techniques		✓			
Model Making		✓			
Understanding of Construction Details		✓			
Drafting Skills (Manual/Computer)		✓			
Site Supervision / Client Interaction Skills					
Time Schedule Adherence		✓			
Other Computer Skills		✓			
Files and Office Maintenance	✓				
Coordination with other Consultants	✓				
Overall Grading*		<u>90</u>			

* Note: Kindly grade the student as per his/her overall performance in the office during the assessment month*

7. Any other Remarks:

Signature of the Head of the Office / Organization (With Seal)



16. Nov. 2022	EDRC standards + layouts	11. Dec. 2022	SUNDAY	05. Jan. 2023	STT DC - Interiors	30. Jan. 2023	Kanchi DC - Revisions
17. Nov. 2022		12. Dec. 2022	Kanchi DC - Interiors	06. Jan. 2023		31. Jan. 2023	
18. Nov. 2022	Thesis intermediate review	13. Dec. 2022		07. Jan. 2023		01. Feb. 2023	
19. Nov. 2022		14. Dec. 2022	Review preparation leave	08. Jan. 2023	SUNDAY	02. Feb. 2023	
20. Nov. 2022	SUNDAY	15. Dec. 2022		09. Jan. 2023	Personal leave	03. Feb. 2023	
21. Nov. 2022	EDRC model + views	16. Dec. 2022		10. Jan. 2023		04. Feb. 2023	SUNDAY
22. Nov. 2022		17. Dec. 2022	Thesis Final Review	11. Jan. 2023		05. Feb. 2023	
23. Nov. 2022		18. Dec. 2022	SUNDAY	12. Jan. 2023		06. Feb. 2023	Kanchi DC - material selections
24. Nov. 2022	Kanchi DC - Interiors	19. Dec. 2022	STT DC - Interiors	13. Jan. 2023		07. Feb. 2023	
25. Nov. 2022		20. Dec. 2022		14. Jan. 2023	SUNDAY	08. Feb. 2023	
26. Nov. 2022		21. Dec. 2022		15. Jan. 2023		09. Feb. 2023	
27. Nov. 2022	SUNDAY	22. Dec. 2022		16. Jan. 2023	STT DC - Interiors	10. Feb. 2023	SUNDAY
28. Nov. 2022	TC2 conference material selection	23. Dec. 2022		17. Jan. 2023		11. Feb. 2023	
29. Nov. 2022		24. Dec. 2022		18. Jan. 2023		12. Feb. 2023	Kanchi DC - Sample selections
30. Nov. 2022	Kanchi DC - Interiors	25. Dec. 2022	SUNDAY	19. Jan. 2023		13. Feb. 2023	
01. Dec. 2022		26. Dec. 2022	TC2 conference - interiors	20. Jan. 2023		14. Feb. 2023	
02. Dec. 2022		27. Dec. 2022		21. Jan. 2023	SUNDAY	15. Feb. 2023	STT annex layouts
03. Dec. 2022	SUNDAY	28. Dec. 2022	STT DC - Interiors	22. Jan. 2023		16. Feb. 2023	
04. Dec. 2022		29. Dec. 2022		23. Jan. 2023	Equinix tender	17. Feb. 2023	
05. Dec. 2022	TC2 conference - interiors	30. Dec. 2022	New year Preparation	24. Jan. 2023		18. Feb. 2023	SUNDAY
06. Dec. 2022		31. Dec. 2022		25. Jan. 2023		19. Feb. 2023	
07. Dec. 2022		01. Jan. 2023	SUNDAY	26. Jan. 2023		20. Feb. 2023	STT annex interiors
08. Dec. 2022		02. Jan. 2023	STT DC - Interiors	27. Jan. 2023		21. Feb. 2023	
09. Dec. 2022		03. Jan. 2023		28. Jan. 2023		22. Feb. 2023	
10. Dec. 2022		04. Jan. 2023		29. Jan. 2023	SUNDAY	23. Feb. 2023	

24. Feb. 2023	STT annex interiors	21. Mar. 2023	EB building exterior	15. Apr. 2023	Acoustic analysis	10. May. 2023	Paint sample selection and collection
25. Feb. 2023		22. Mar. 2023		16. Apr. 2023	SUNDAY	11. May. 2023	
26. Feb. 2023	SUNDAY	23. Mar. 2023	STT annex interiors	17. Apr. 2023	Acoustic analysis	12. May. 2023	Kanchi car parking
27. Feb. 2023	STT annex interiors	24. Mar. 2023		18. Apr. 2023	STT DC facade	13. May. 2023	
28. Feb. 2023		25. Mar. 2023		19. Apr. 2023		14. May. 2023	SUNDAY
01. Mar. 2023		26. Mar. 2023		20. Apr. 2023		15. May. 2023	TC4 conference room 3 & 4 - Interiors
02. Mar. 2023		27. Mar. 2023	21. Apr. 2023	Merino visit	16. May. 2023		
03. Mar. 2023		28. Mar. 2023	22. Apr. 2023	Build HQ visit	17. May. 2023		
04. Mar. 2023	29. Mar. 2023	23. Apr. 2023	SUNDAY	18. May. 2023			
05. Mar. 2023	SUNDAY	30. Mar. 2023	Kanchi Client visit	24. Apr. 2023	STT annex interiors	19. May. 2023	
06. Mar. 2023	Acoustics - Basics	31. Mar. 2023	Kanchi material updations	25. Apr. 2023	TC2 revisions & Site visits	20. May. 2023	SUNDAY
07. Mar. 2023		01. Apr. 2023		26. Apr. 2023		21. May. 2023	
08. Mar. 2023	Sick leave	02. Apr. 2023	SUNDAY	27. Apr. 2023	STT annex interiors	22. May. 2023	STT annex material selection and collection
09. Mar. 2023	Acoustic analysis	03. Apr. 2023	TC4 canopy	28. Apr. 2023		23. May. 2023	
10. Mar. 2023		04. Apr. 2023		29. Apr. 2023		24. May. 2023	
11. Mar. 2023		05. Apr. 2023	Kanchi renders - material updations	30. Apr. 2023	SUNDAY	25. May. 2023	
12. Mar. 2023	SUNDAY	06. Apr. 2023		01. May. 2023	STT annex area statements	26. May. 2023	
13. Mar. 2023	Acoustic analysis	07. Apr. 2023		02. May. 2023		27. May. 2023	Personal leave
14. Mar. 2023		08. Apr. 2023		03. May. 2023	Kanchi Canopy	28. May. 2023	SUNDAY
15. Mar. 2023		09. Apr. 2023	SUNDAY	04. May. 2023		29. May. 2023	Standard Office spaces - Articles
16. Mar. 2023	EB building exterior	10. Apr. 2023	STT annex interiors - updations	05. May. 2023	30. May. 2023		
17. Mar. 2023		11. Apr. 2023		06. May. 2023	Cosmo,Guntupalli visit	TC2 revisions	
18. Mar. 2023		12. Apr. 2023		07. May. 2023	SUNDAY		
19. Mar. 2023	SUNDAY	13. Apr. 2023	Importance of colours - Articles	08. May. 2023	Kanchi materials - revisions & updation		
20. Mar. 2023	EB building exterior	14. Apr. 2023		09. May. 2023			

B&F IC/EDRC-HR/Training/652-2022

2nd June 2023

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. GANNAPANENI SAI VINEELA (38210027)** from **Sathyabama Institute of Science and Technology, Chennai** has undergone her project internship at our Engineering Design & Research Centre (EDRC) – Headquarters from **16th Nov 2022- 31th May 2023**

We wish her all the best for her future endeavors.

Yours faithfully,

for LARSEN & TOUBRO LIMITED



SUNEET KUMAR
DGM - HUMAN RESOURCES

Registered Office: L&T House, N. M. Marg, Ballard Estate, Mumbai - 400 001. INDIA
Licence No.: CIN - L99999MH1946PLC004768

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1. ABOUT THE FIRM

2. SMART DIGI DATA CENTER KANCHIPURAM

- Open office
- Toilet
- Pantry
- Other spaces
- Entrance portal
- Open parking

3. TC2 CONFERENCE ROOM

4. ST TELEMEDIA DATA CENTER - DC BUILDING, NAVI MUMBAI

- Workflow
- Meeting rooms & Board room
- Cafeteria & soc room
- Toilets
- Lift lobby & office
- Acoustics
- Finishing schedule - Revisions
- Facade design

5. ST TELEMEDIA DATA CENTER - ANNEX BUILDING, NAVI MUMBAI

- Frisking, Waiting and Dining area
- Lift lobby, Toilet and Board rooms
- Recreational spaces
- Playbook requirements

6. EB BUILDING - TC4

7. ENGINEERING DEVELOPMENT AND RESEARCH CENTER - L&T CHENNAI

- Standards
- Floor layouts & Views

8. EQUINIX DATA CENTER - MUMBAI

- Phases & scope
- Conceptual drawings
- Statutory compliance
- Area statement

9. POST FINALIZATIONS

10. CRITICAL OVERVIEW

1. ABOUT THE FIRM

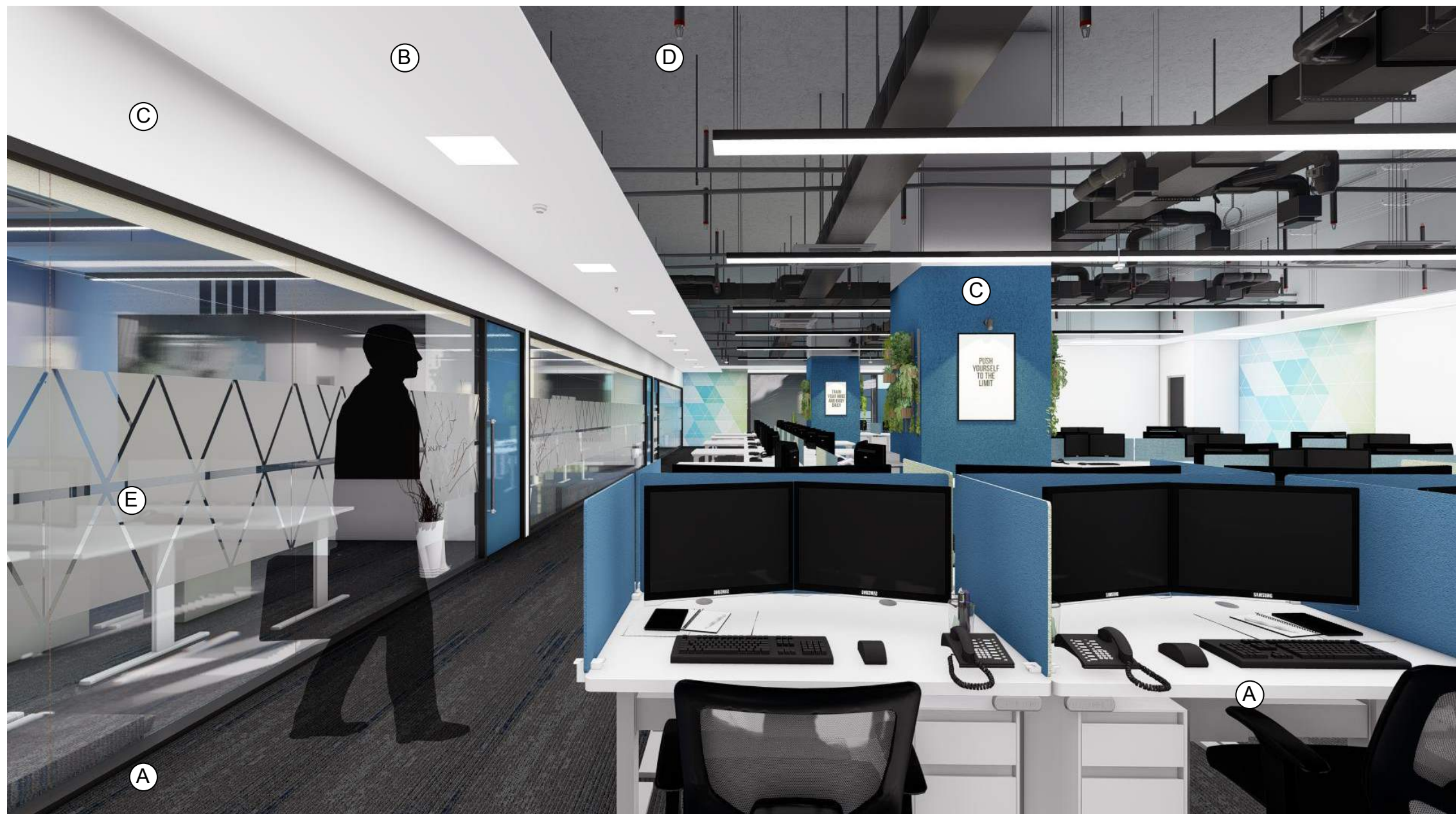
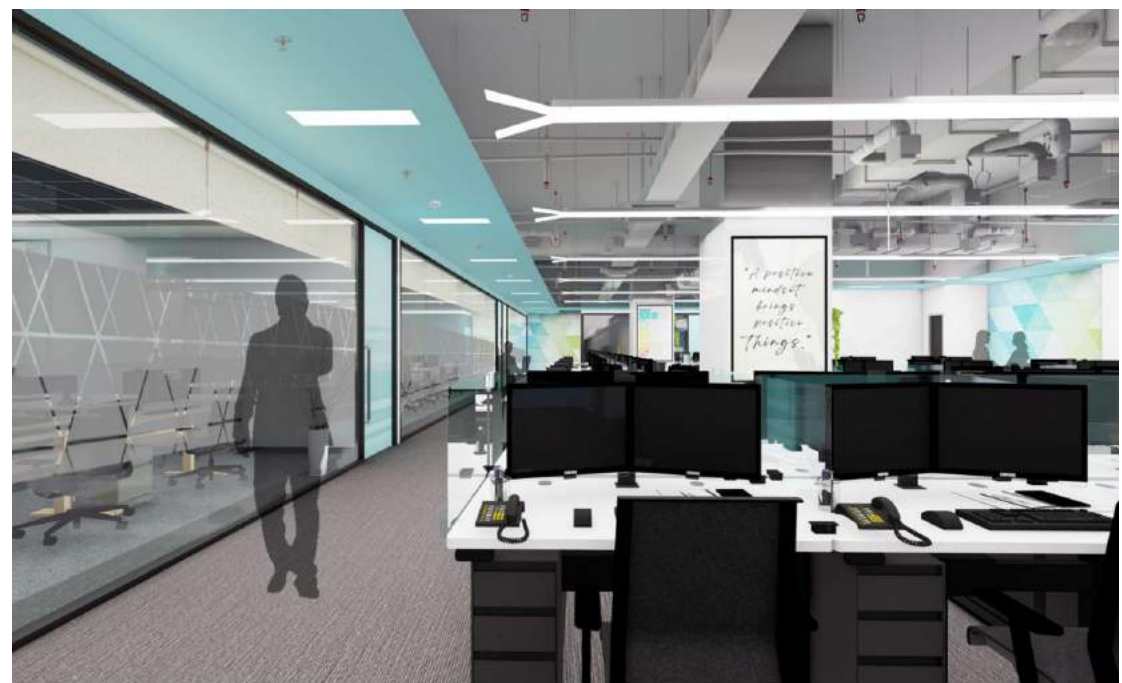
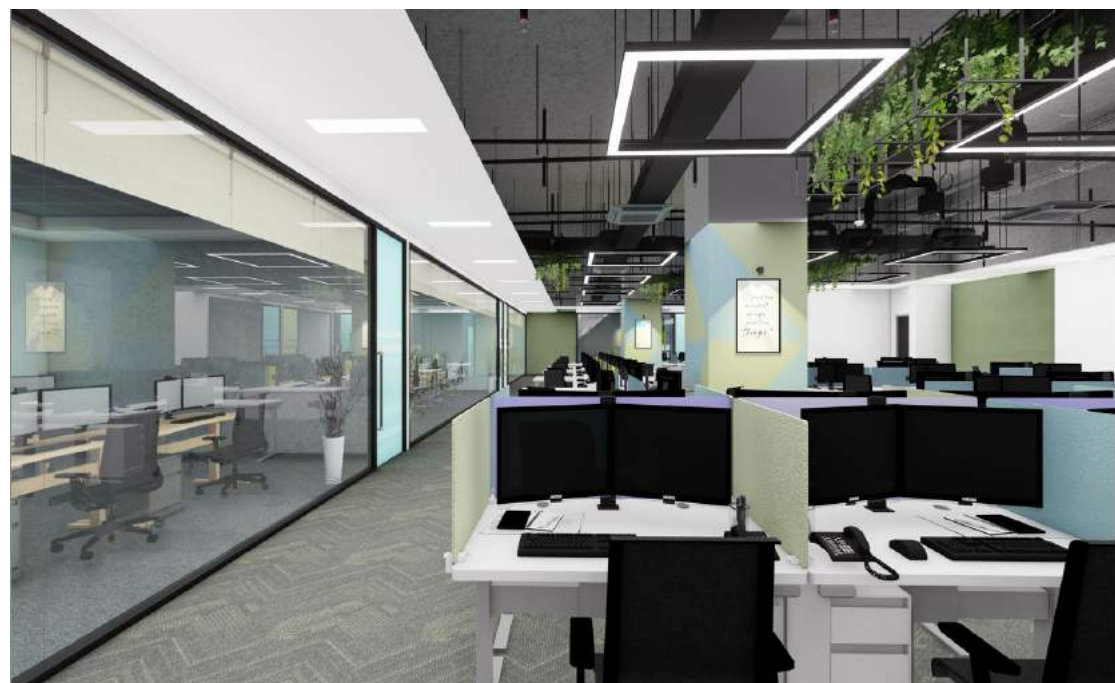
L&T Construction is a division of Larsen & Toubro (L&T) a major Indian technology, engineering, construction, manufacturing and financial services conglomerate, with global operations. L&T addresses critical needs in key sectors - Hydrocarbon, Infrastructure, Power, Process Industries and Defence - for customers in over 30 countries around the world. L&T is engaged in core high impact sectors of the economy and our integrated capabilities span the entire spectrum of 'design to deliver'. With over 8 decades of a strong, customer focused approach and a continuous quest for world-class quality, we have unmatched expertise across Technology, Engineering, Construction, Infrastructure Projects and Manufacturing.

We have the capability to design-and-build world-class IT infrastructure – software development blocks, IT & software parks, techno & business parks and built-to-suit IT offices ready for people to come 'plug-and-play'. Residing within our Buildings business vertical, we have built many of India's finest commercial complexes and green buildings thanks to our strength in core technologies, know-how of architectural and structural design, optimal interior systems, use of high-strength concrete, complete electromechanical works and office automation systems. Our expert architects, consultants and engineers deliver durable and long-term benefits, by incorporating efficient energy, environment & water management and safety systems through the combined expertise of different engineering disciplines and the right technology mix.

2. SMART DIGI DATA CENTER KANCHIPURAM

This datacenter is proposed in kanchipuram which is a own project of L&T. There are two phases for this project , currently the first phase is under construction simultaneously the interiors are being designed.

Current scope of works handled : Interior design schemes are at the final stage of approval, after the schemes are approved , detailed drawings were made for those approved options simultaneously the material samples for the approved schemes were collected which involved the following stages , selection of materials from catalogues , collection of samples from vendors after the approval of higher authority , making preference before client visit, presenting material samples to client for their approval and documenting the same , not satisfied materials are further processed and collected for the next client visit simultaneously coordinating with the project management team and site team. Also the same procedure was followed for the facade materials which is to be cladded for the already approved facade design simultaneously designing the entrance portal with different conceptual options as per chief architects suggestions and out of box options , and creation of final presentation for the finalised options along with detailed drawings and day and night view 3d renders with proper case study.



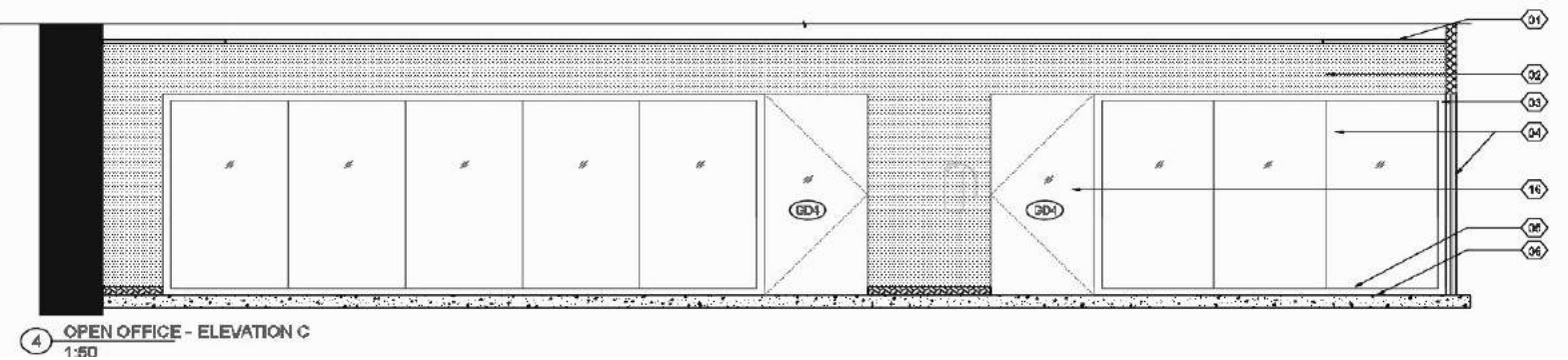
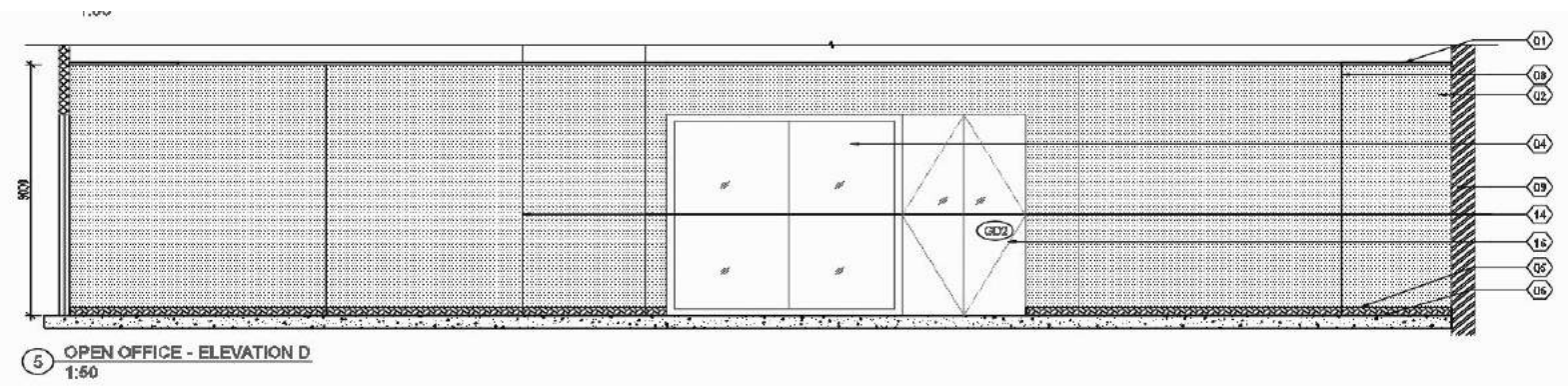
(A)  Carpet flooring
Disruptive path - Cosmic sky
(Shaw carpets)

(B)  Gypsum Board Ceiling
Saint gobain gyproc

(C)  Acrylic emulsion paint
Ice grey - 8259
Waikiki - 7342
(Berger)

(D)  Cement Paint

(E)  Glass Partition With Frosting



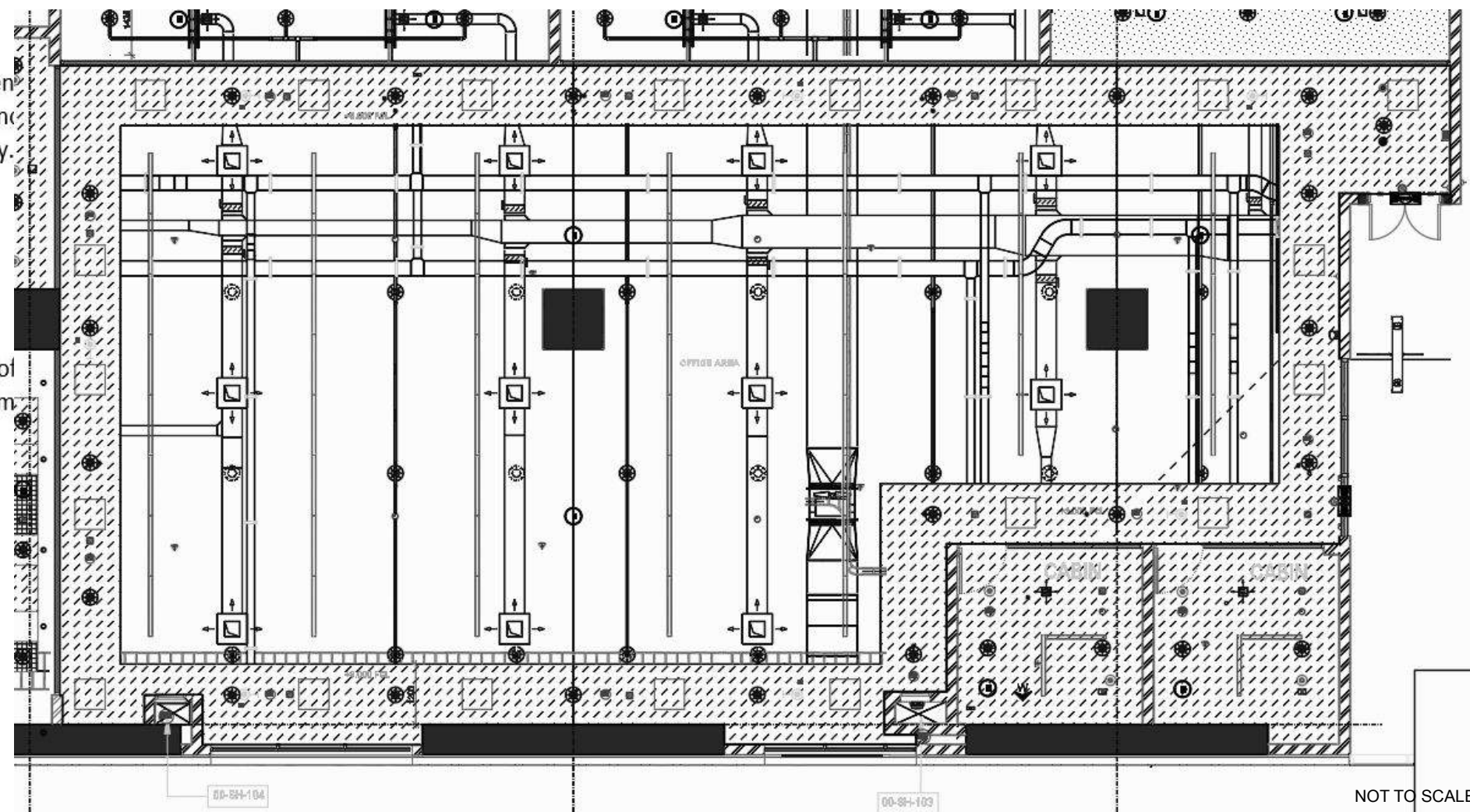
The Design speaks of a modern architecture with exposed industrial look. The exposed services elevates the dimension. hint of green color adds a contrast to industrial look.

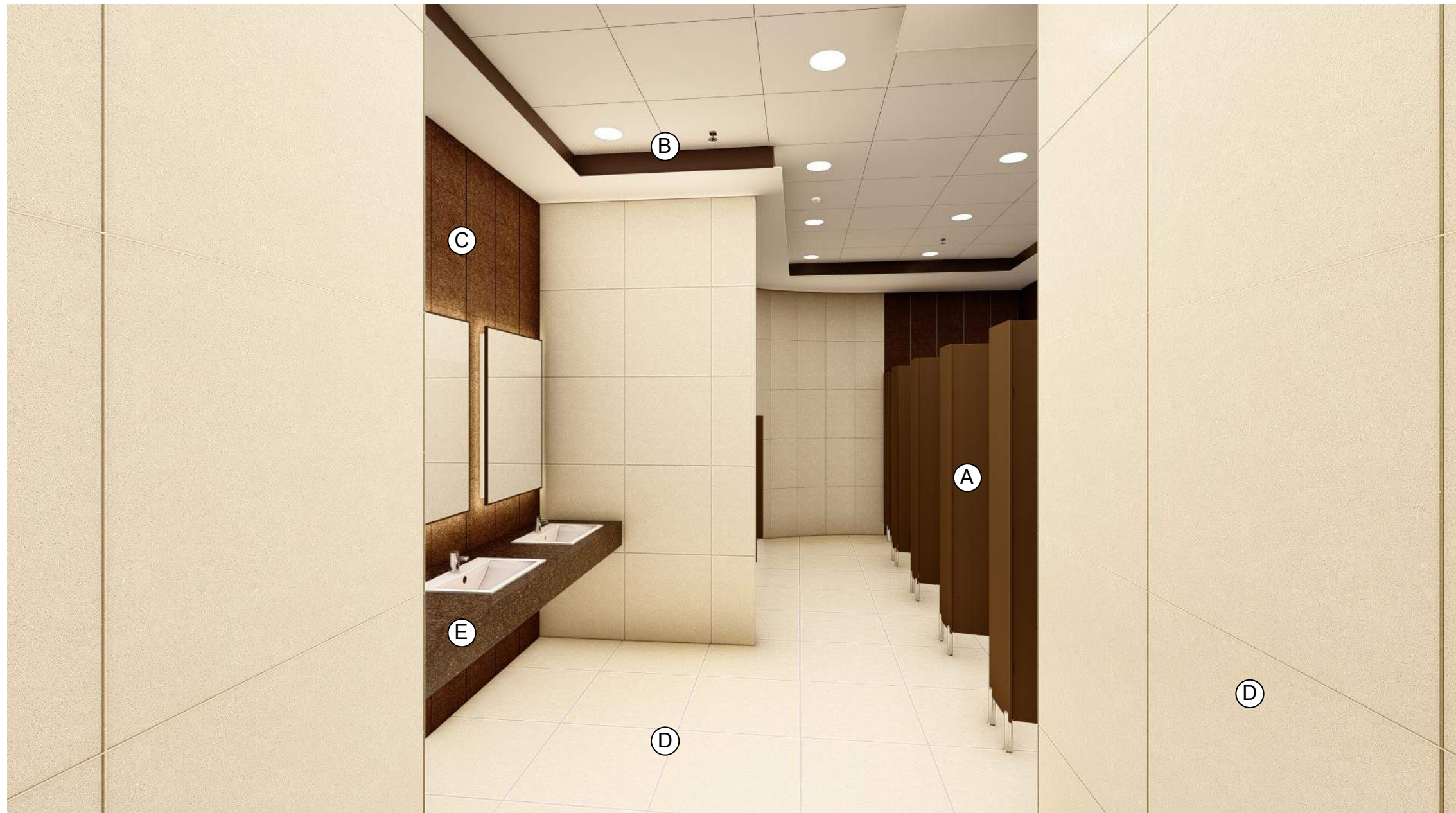


Similar modern design approach has been in parallel fashion with regular breaks. Hence, scale and breaking down the monotonicity.



The design speaks for itself of ambience of the wall create a pixilated theme with com





(A)



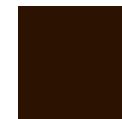
Laminate
Mocha ridge brown 21038
(Merino)

(B)



Gypsum Board Ceiling
Saint gobain gyproc

(C)



Ceramic tile
Corsa brown 30*30
(Somany)

(D)

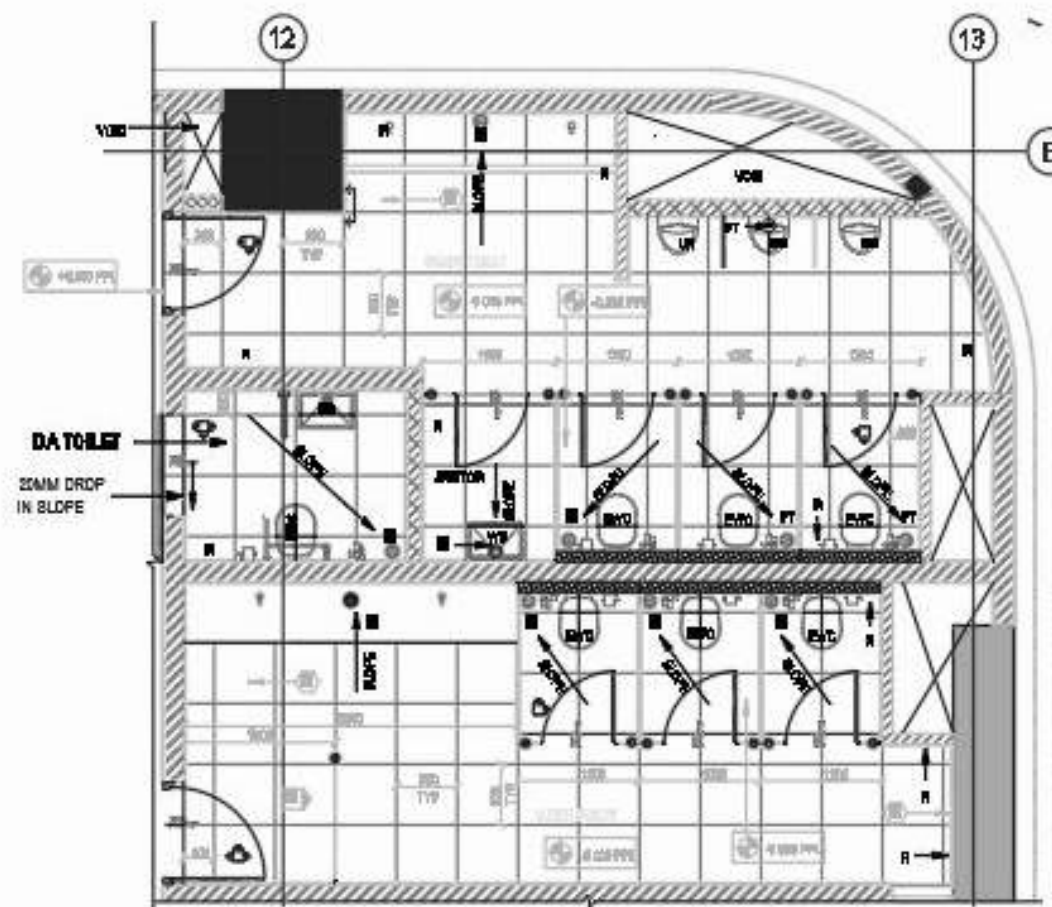


Vitrified tile
Elite crema 60*60
(Somany)

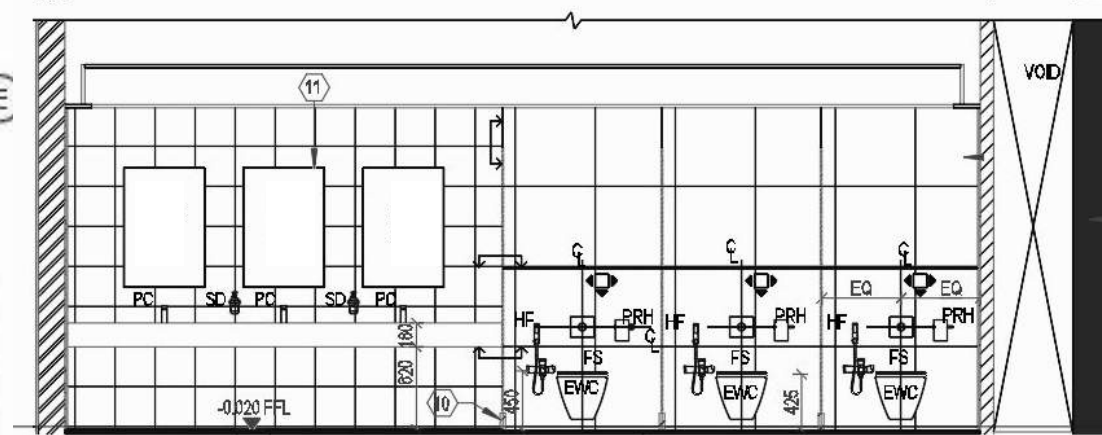
(E)



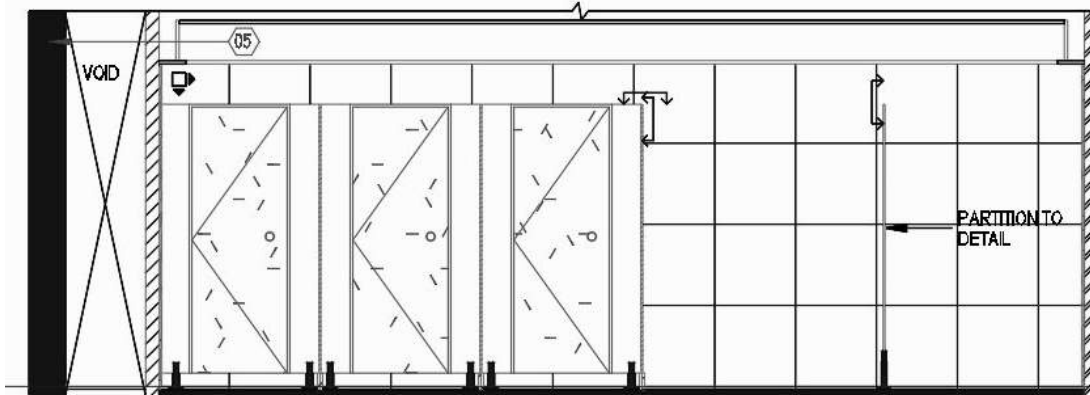
Granite
Tan brown RK marbles



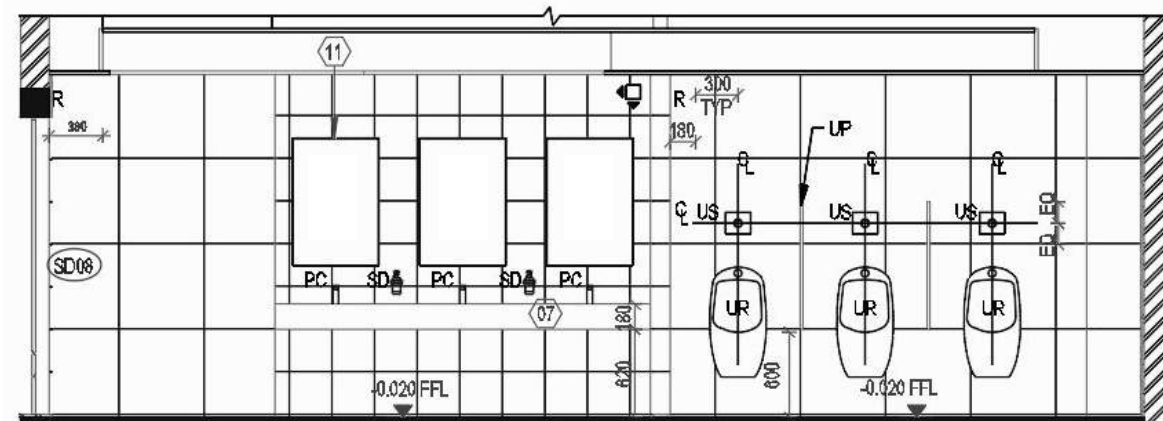
Internal layout



Wall elevation



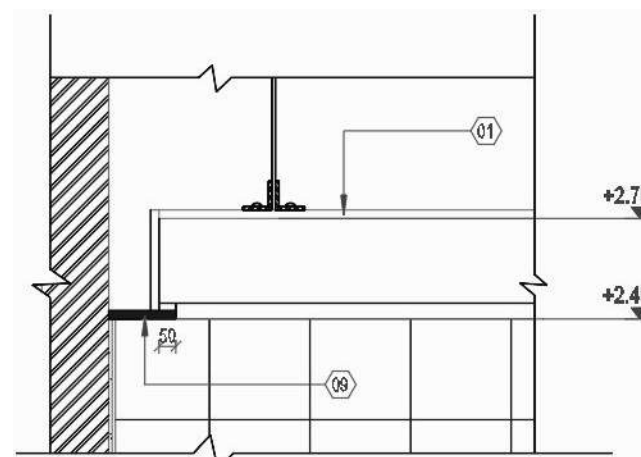
Wall elevation



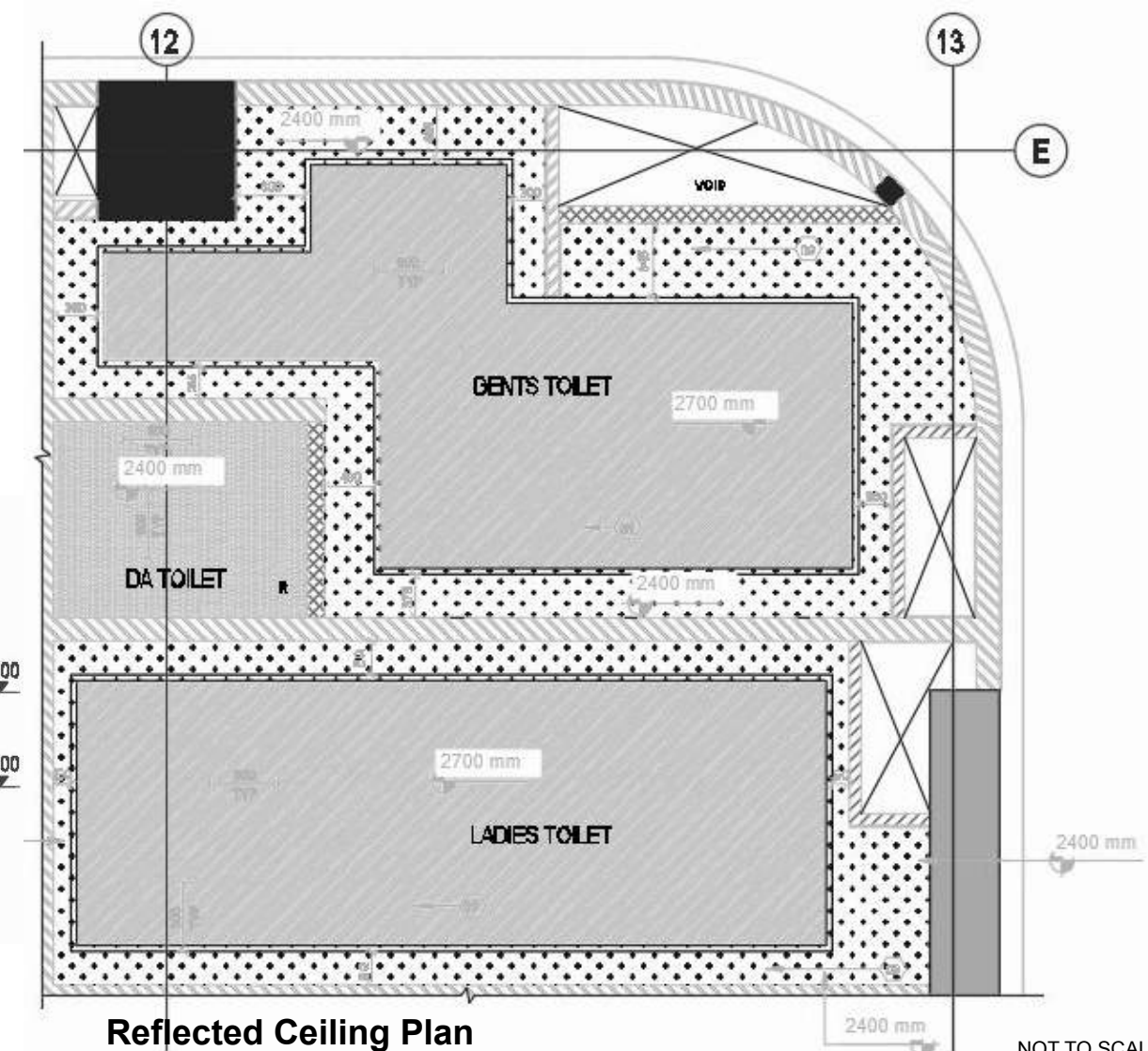
Wall elevation

SPECIFICATIONS

- FLOORING :** VITRIFIED TILE 600mmX600mm (AS PER SPECIFICATION) LAID OVER 20MM THK. CEMENT MORTAR 1:4 IN SLOPE AS PER DRAWINGS.
- WALL DADO :** CERAMIC TILE 300mmX300mm (AS PER SPECIFICATION)
- MIRROR :** 600X900mm, 6MM THICK MIRROR
600X600mm, 6mm THICK MIRROR FOR DA TOILET
- URINAL** 12mm THK DOUBLE SIDE LAMINATED
- PARTITION :** PARTICLE BOARD(AS PER SPECIFICATIONS)
- PLASTERING :** 12mm THK INTERNAL PLASTERING



Ceiling detail



Reflected Ceiling Plan

LEGEND

FFL : FINISHED FLOOR LEVEL

AFFL : ABOVE FLOOR FINISH LEVEL

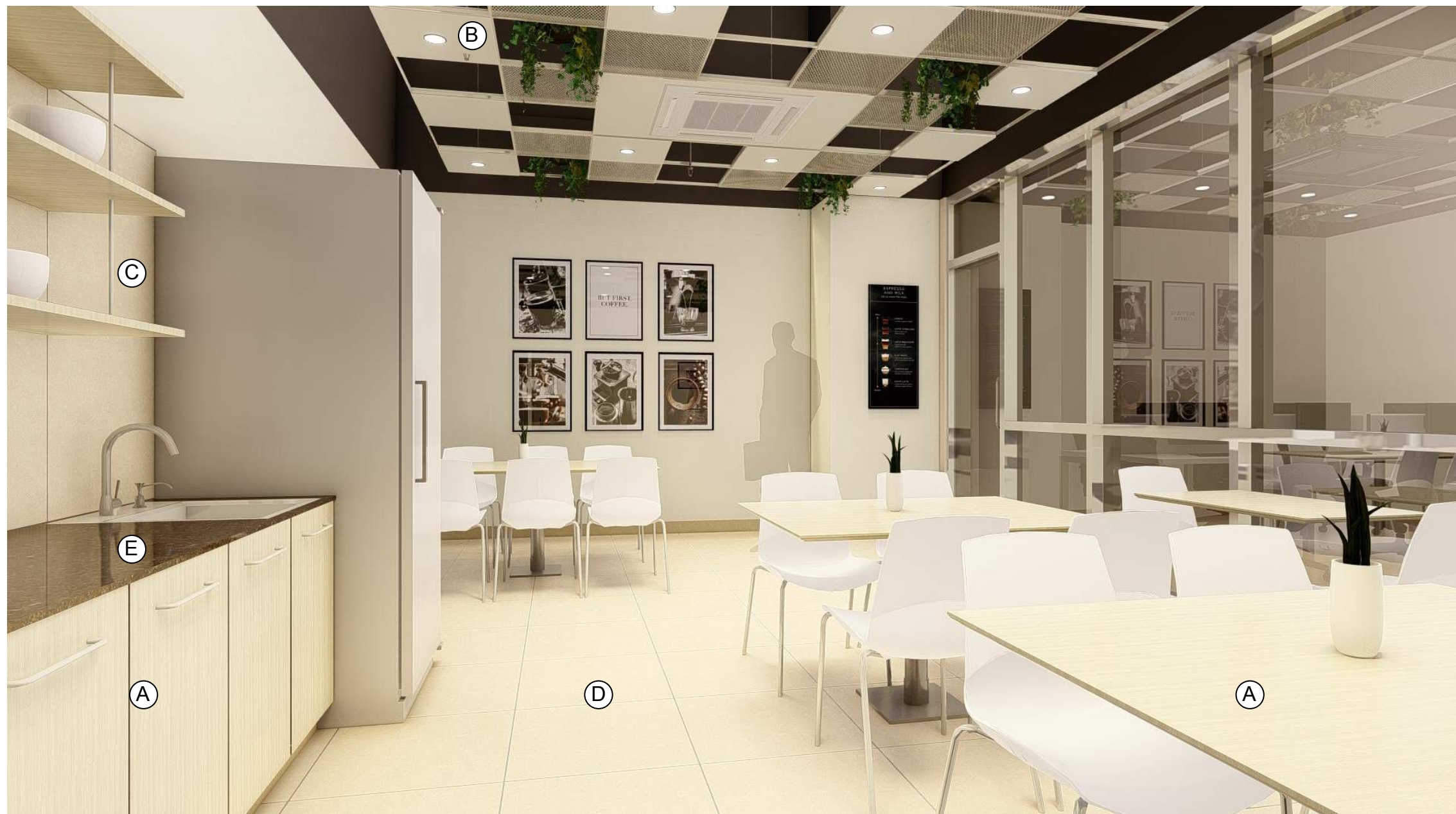
LVL : LEVEL

GRID LINES

REFERENCE LINES

-  - START TILE
-  - FLOOR DROP
-  - ALIGN TILE LINE
- R** - RESIDUE TILE
- EQ** - EQUAL LENGTH

NOT TO SCALE



(A)



Laminate
Neo highland pine
(Merino)

(B)



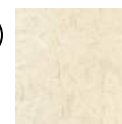
Gypsum Board Ceiling
Saint gobain gyproc

(C)



Acrylic emulsion paint
Ral 9003

(D)

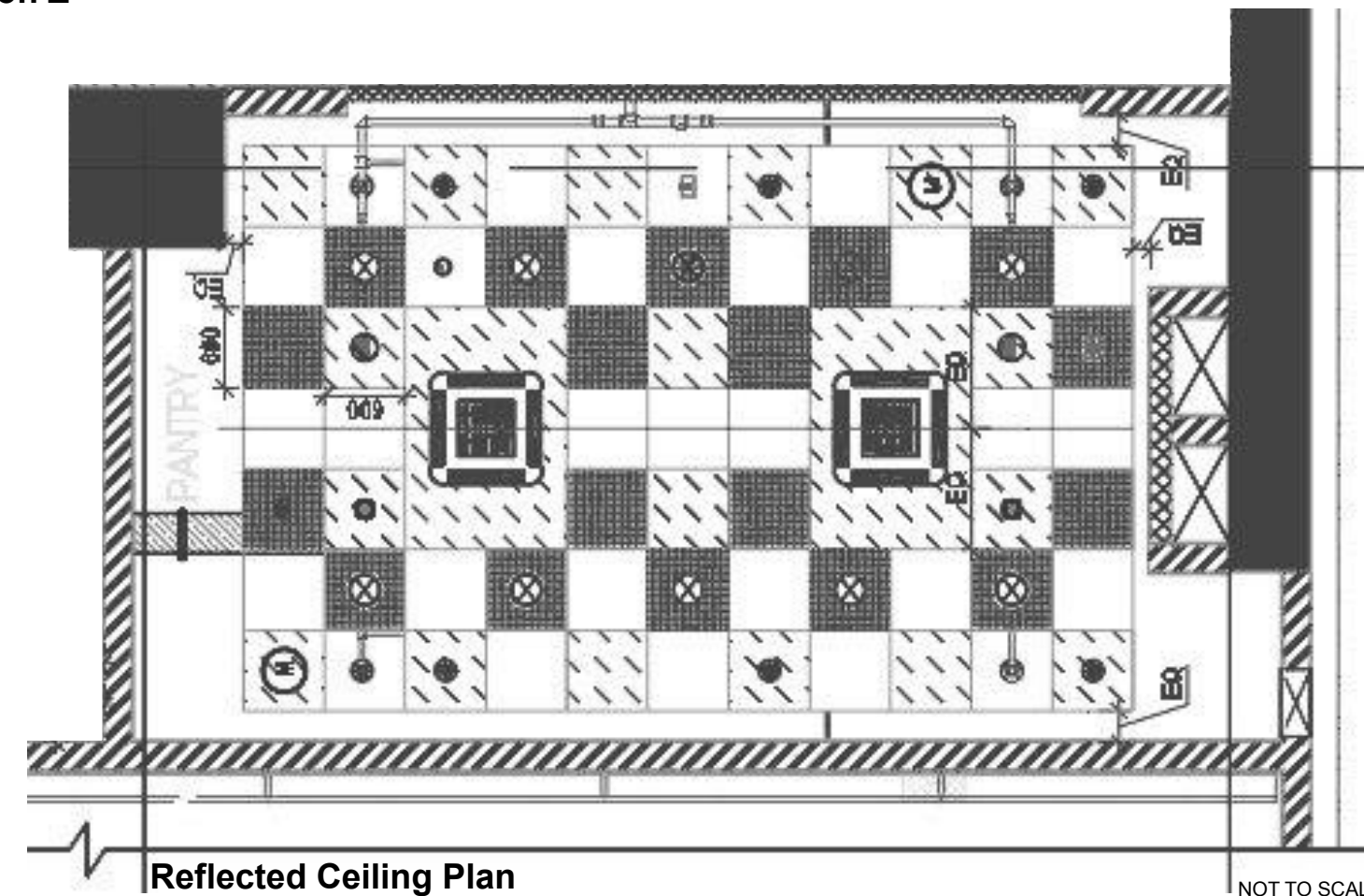
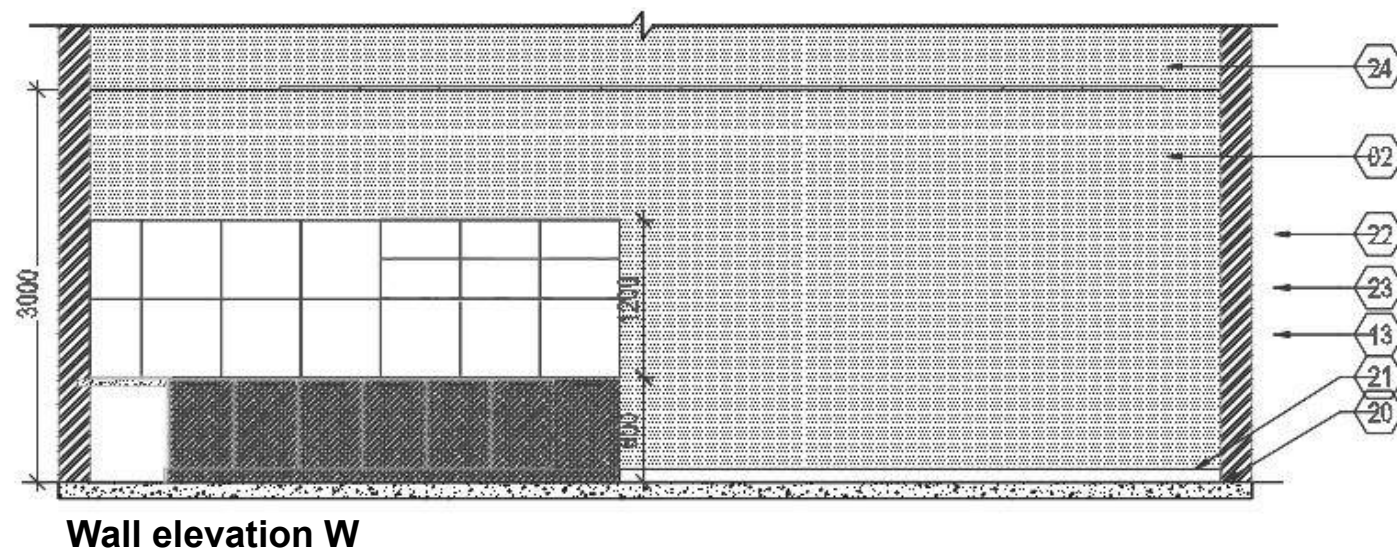
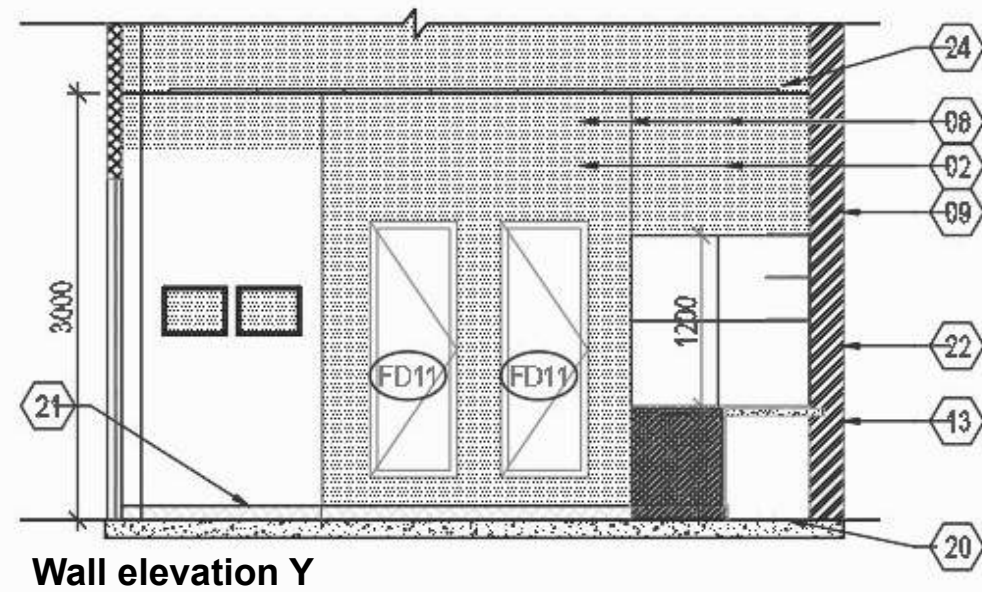
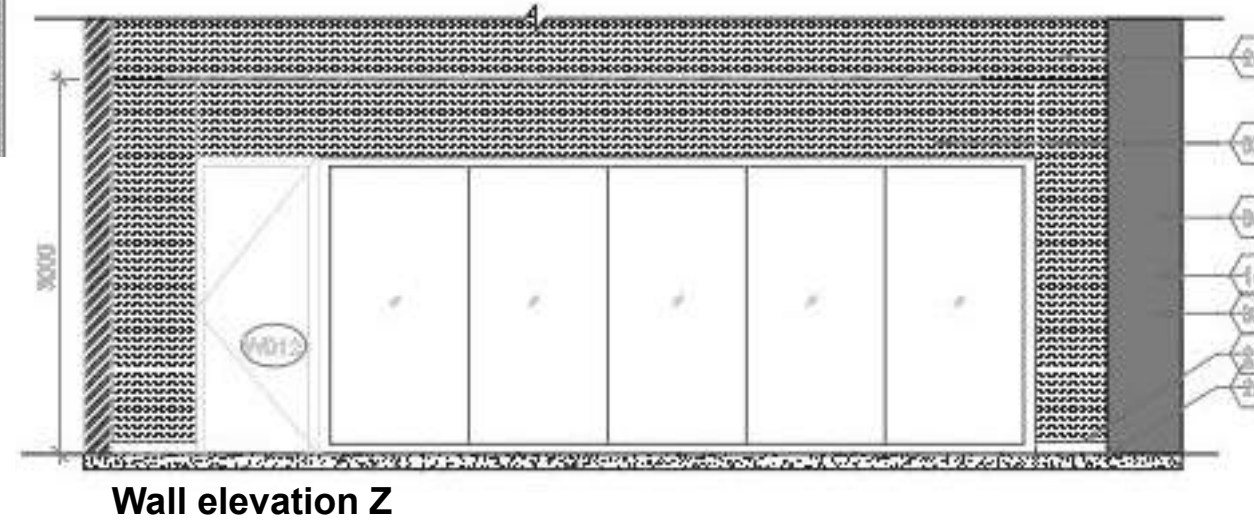
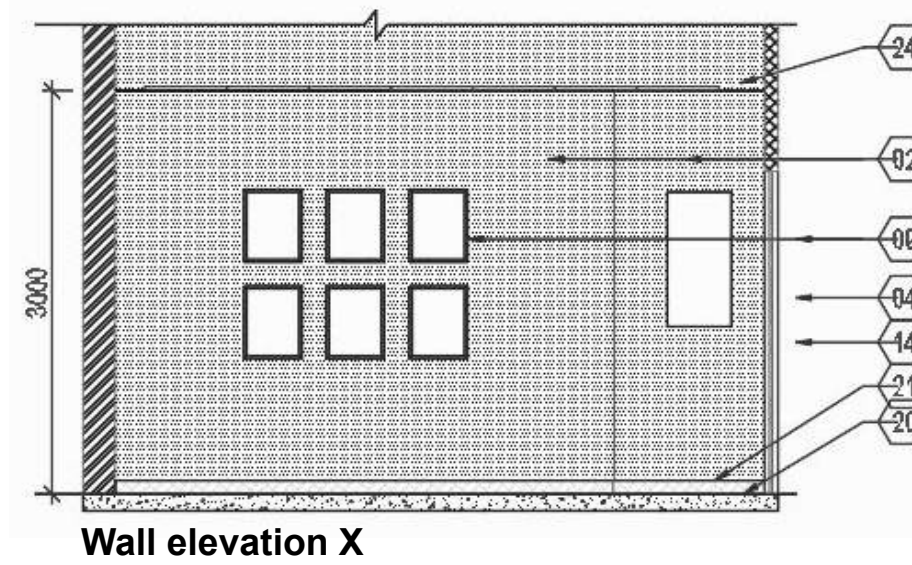
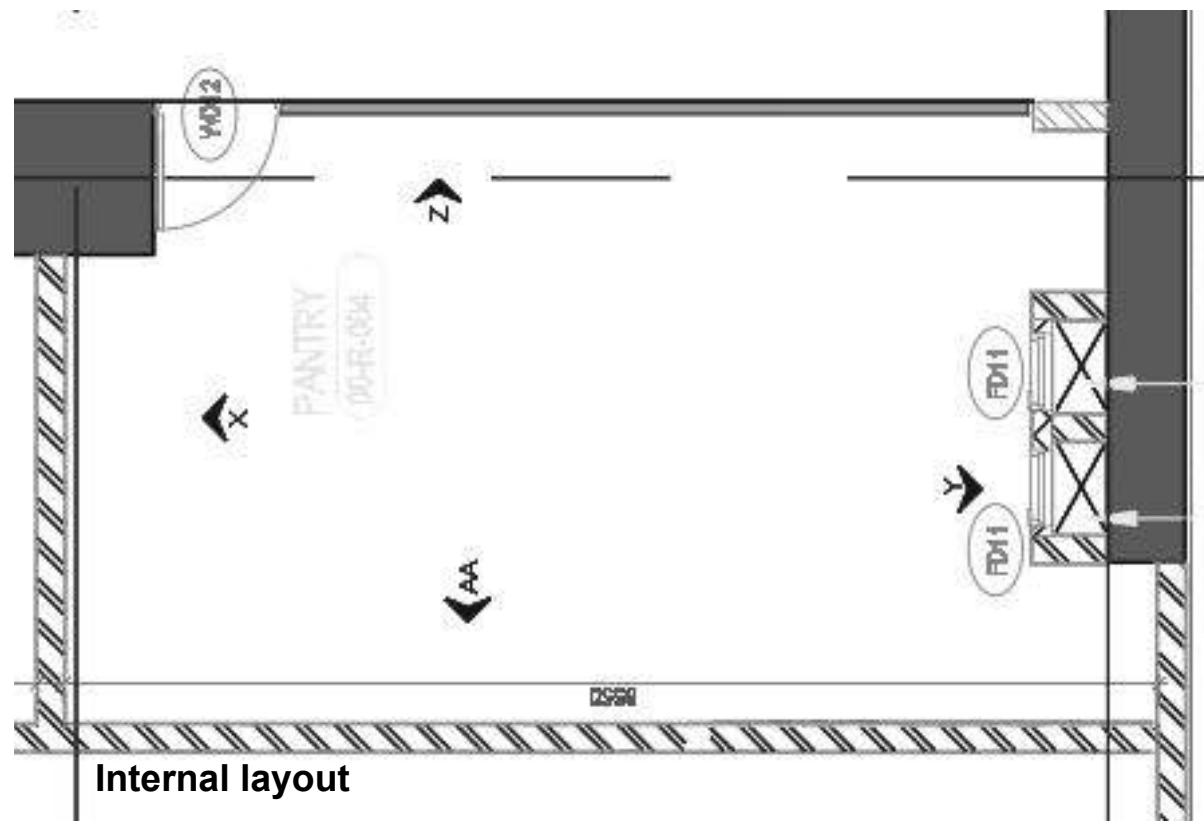


Vitrified tile
Elite crema 60*60
(Somany)

(E)



Granite
Tan brown RK marbles



- KEY NOTES**
1. GYPSUM CEILING
 2. ACRYLIC EMULSION PAINT
 3. AL FRAME
 4. 12MM THK. GLASS PARTITION
 5. 100mm HIGH AL SKIRTING
 6. CARPET FLOORING
 7. SHEAR WALL SEEN IN ELEVATION
 8. WALL SEEN IN ELEVATION
 9. BLOCK WALL
 10. FABRIC PANNELLING
 11. TELEVISION
 12. WRITING BOARD
 13. STORAGE
 14. COLUMN SEEN IN ELEVATION
 15. PORTAL FOR ACCESS CONTROL
 16. GLASS DOOR
 17. SCREEN
 18. MDF BAFFLES
 19. OPEN SHELF
 20. VITRIFIED TILE FLOORING
 21. 100MM HIGH VITRIFIED TILE SKIRTING
 22. CERAMIC TILE WALL DADO
 23. GRANITE COUNTER
 24. GYPSUM / MESH GRID / OPEN CEILING
 25. GLASS PANELING



NOC room - interiors



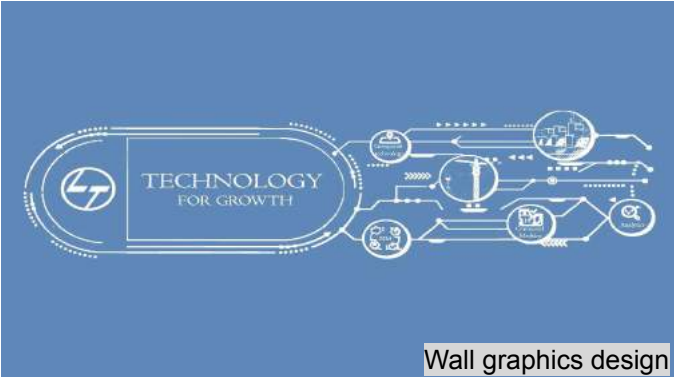
BMS room - interiors



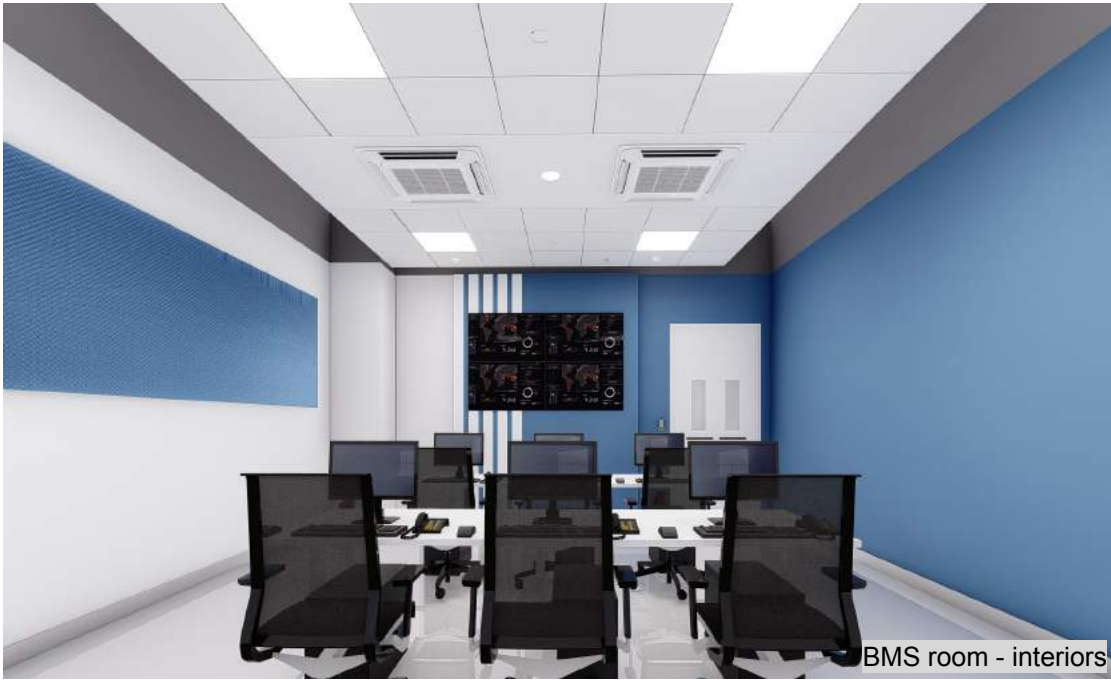
Cabin - interiors



Lift lobby - interiors



Wall graphics design



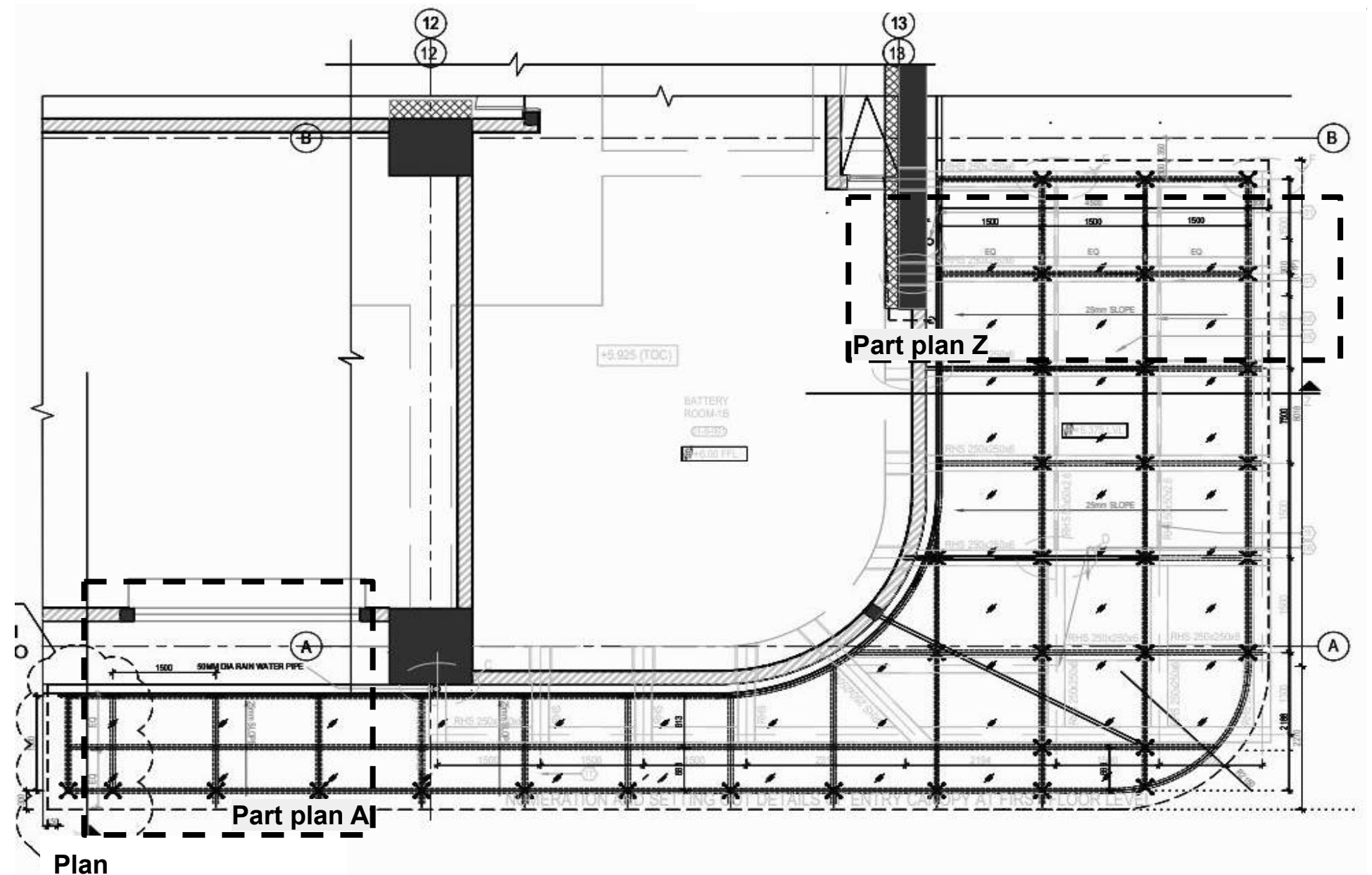
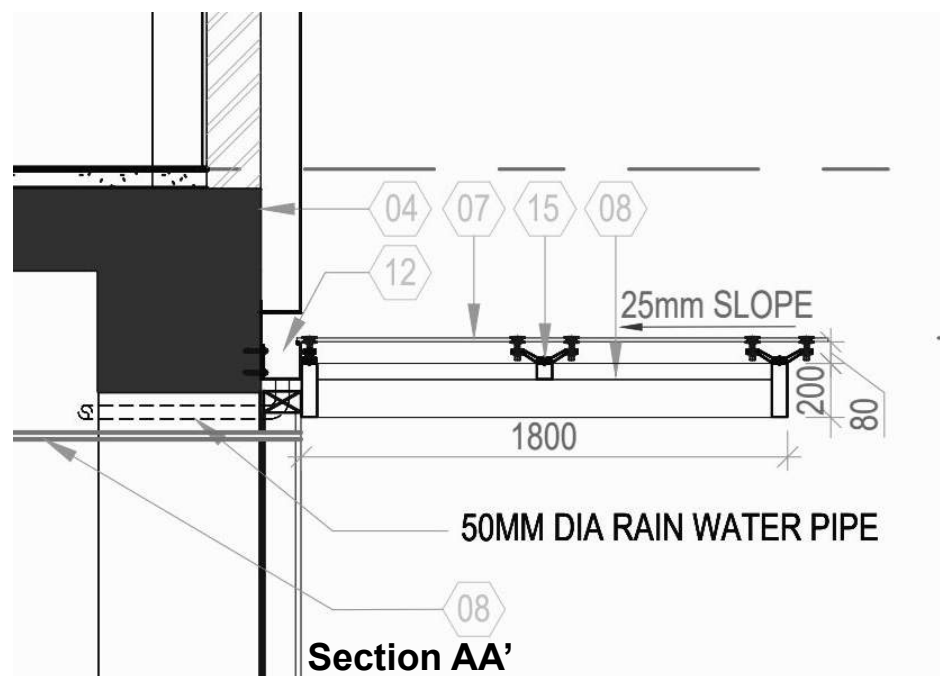
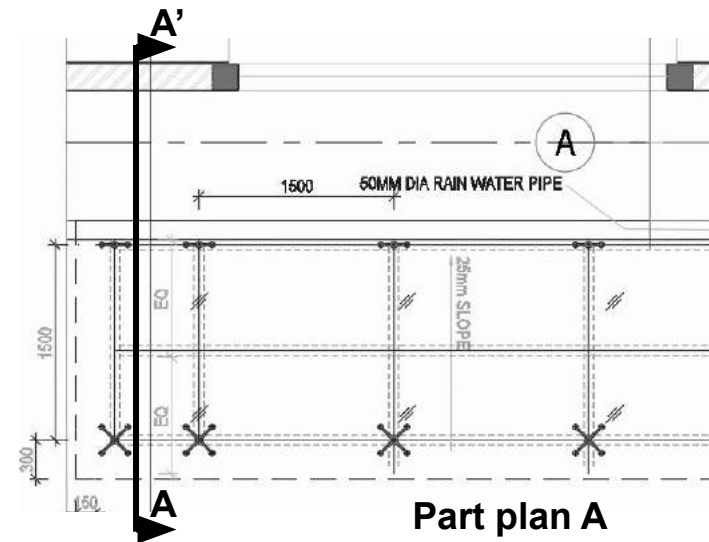
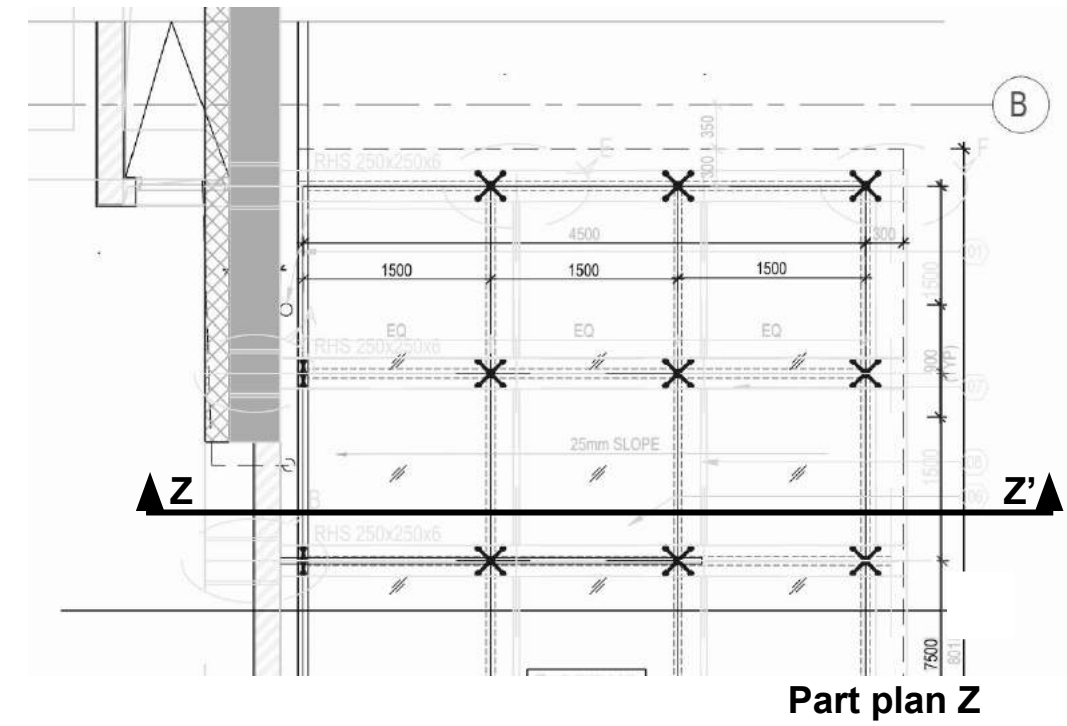
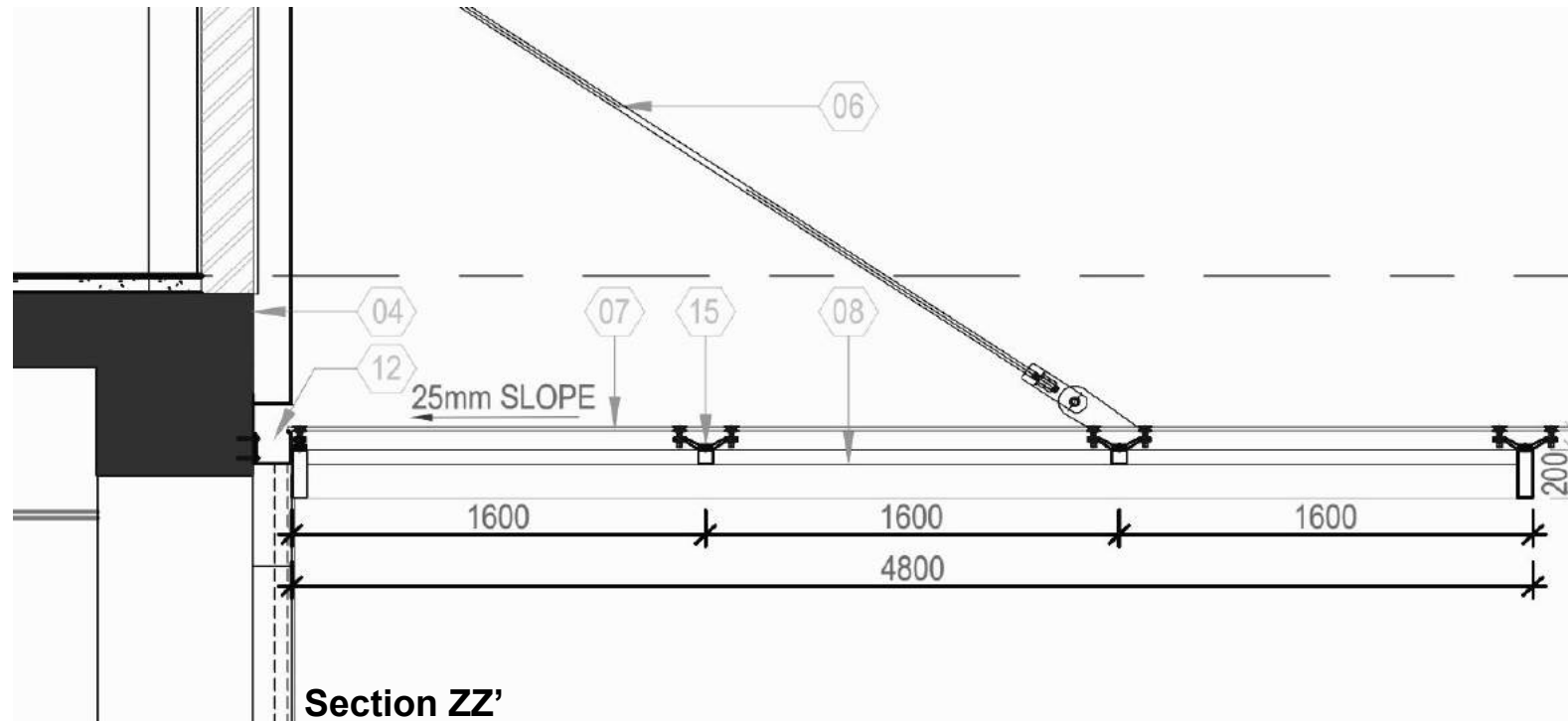
BMS room - interiors



NOC room - interiors



Entrance canopy design





ACP cladded portal

Option1 – Inviting portal

- With a contemporary Design, this portal holds minimal articulations and follows the concept of less is more.
- The walls are shaped in an **arched manner** as an inviting and welcoming gesture.
- The massiveness of the structure with water fountain gives a sense of grandness in the entrance.



Option2 – okati

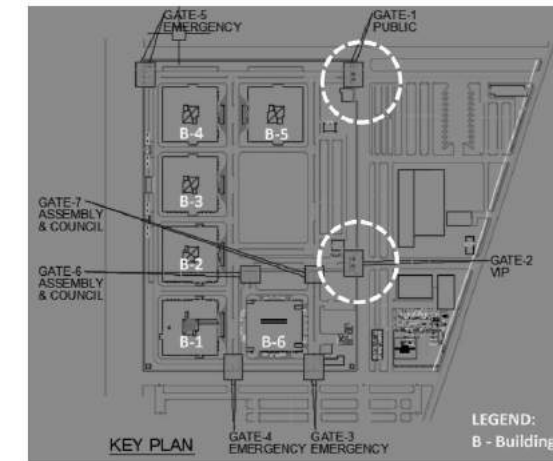
One, being the first non zero natural number can be a representation of “the beginning” and “Unity”. This design is a direct representation of the Telugu Glyph for the numeral One.

- Contemporary Design
- Designed to merge with natural landscape.
- Grand and welcoming
- No.1 – person, No.1 building in the state...



Option3 – Tensile fabric

- This design follows post modernism, with tensile fabric/membrane as the primary element.
- The low weight of the materials makes construction easier and looks attractive than standard RC designs.



Location

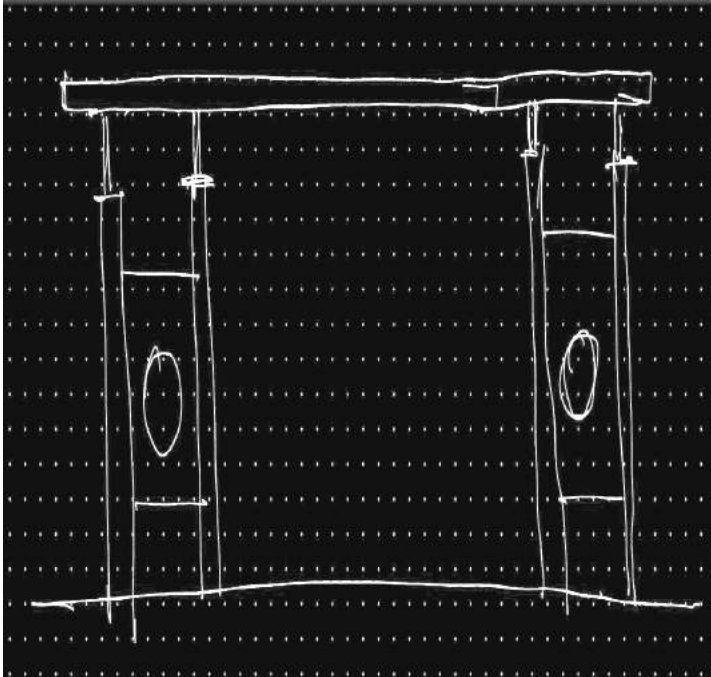
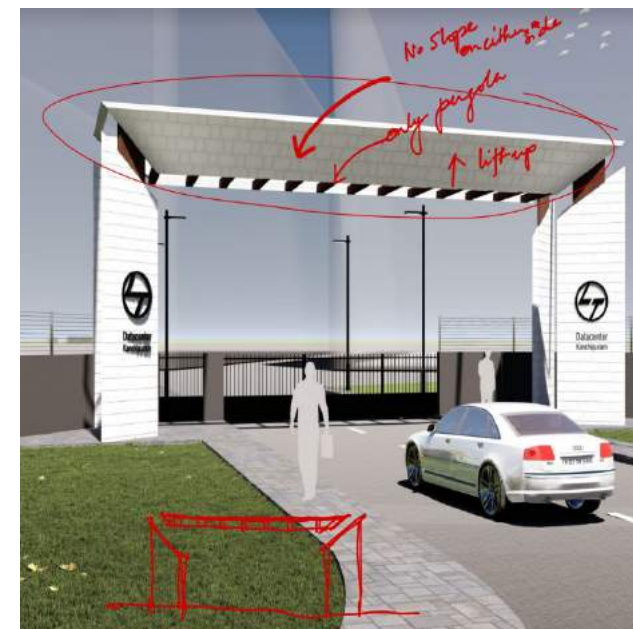
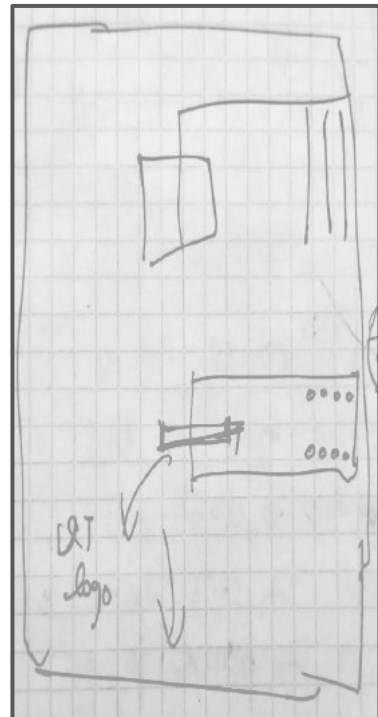
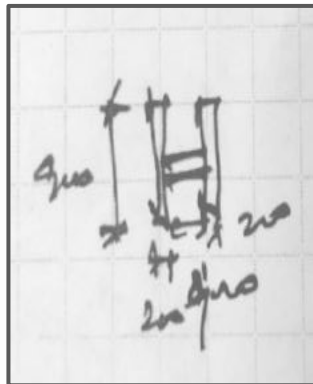
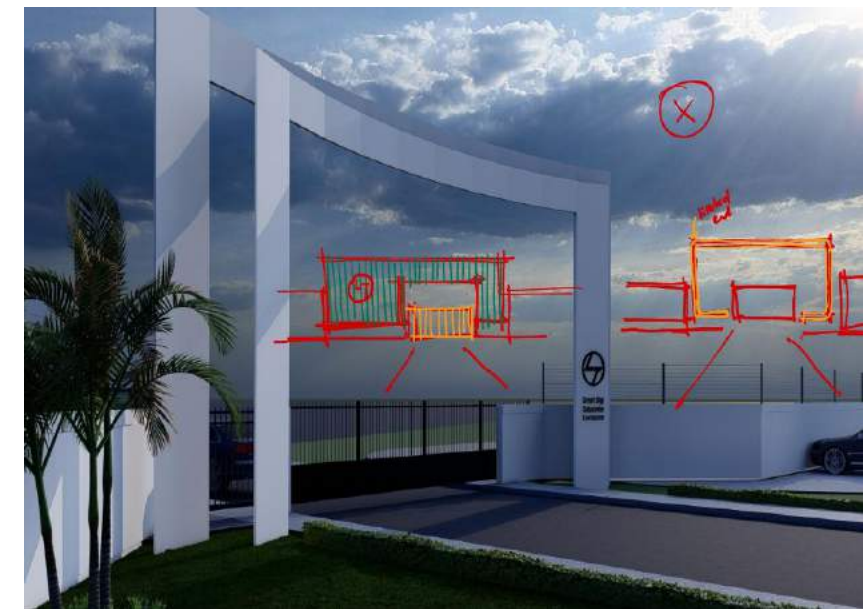
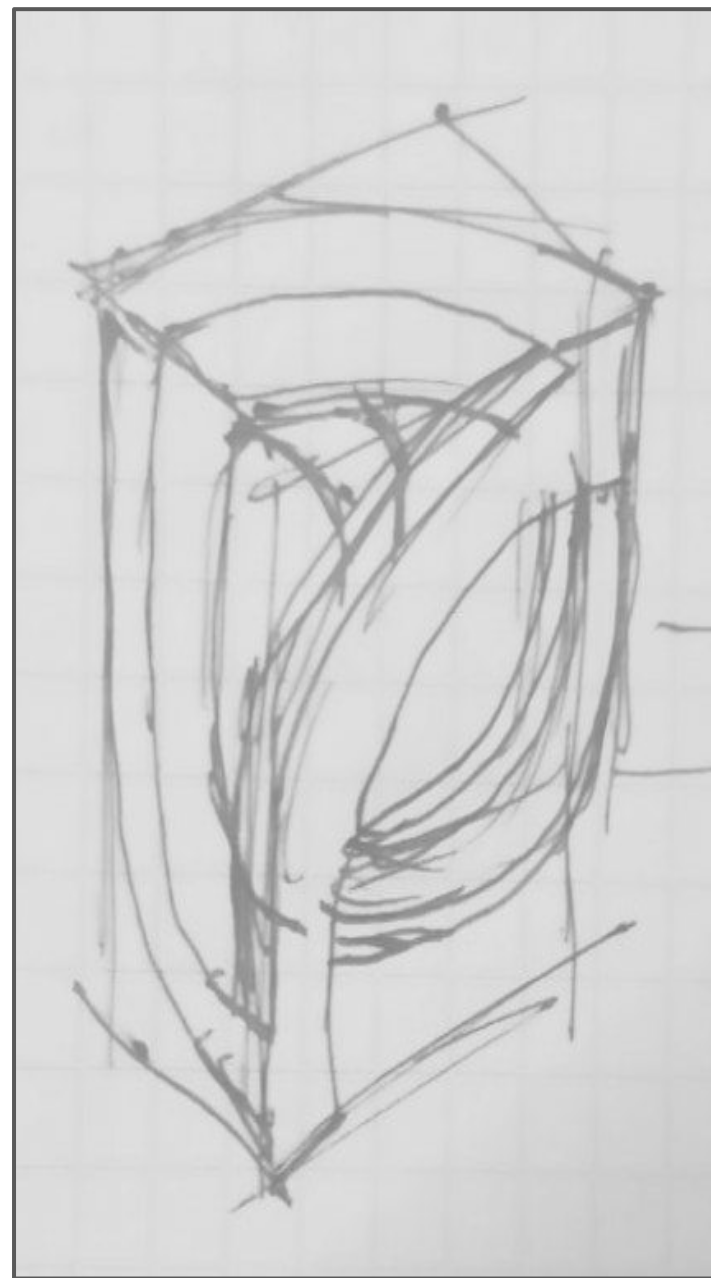
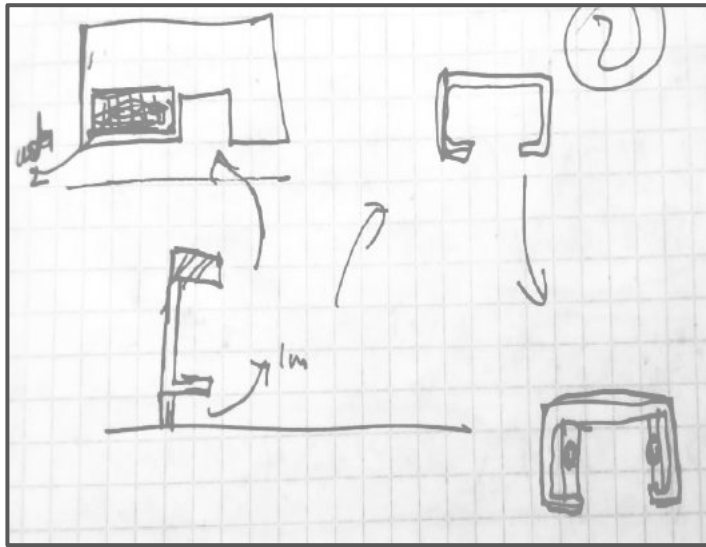


Amaravati Entrance Arch concepts

Option4 – Glass canopy

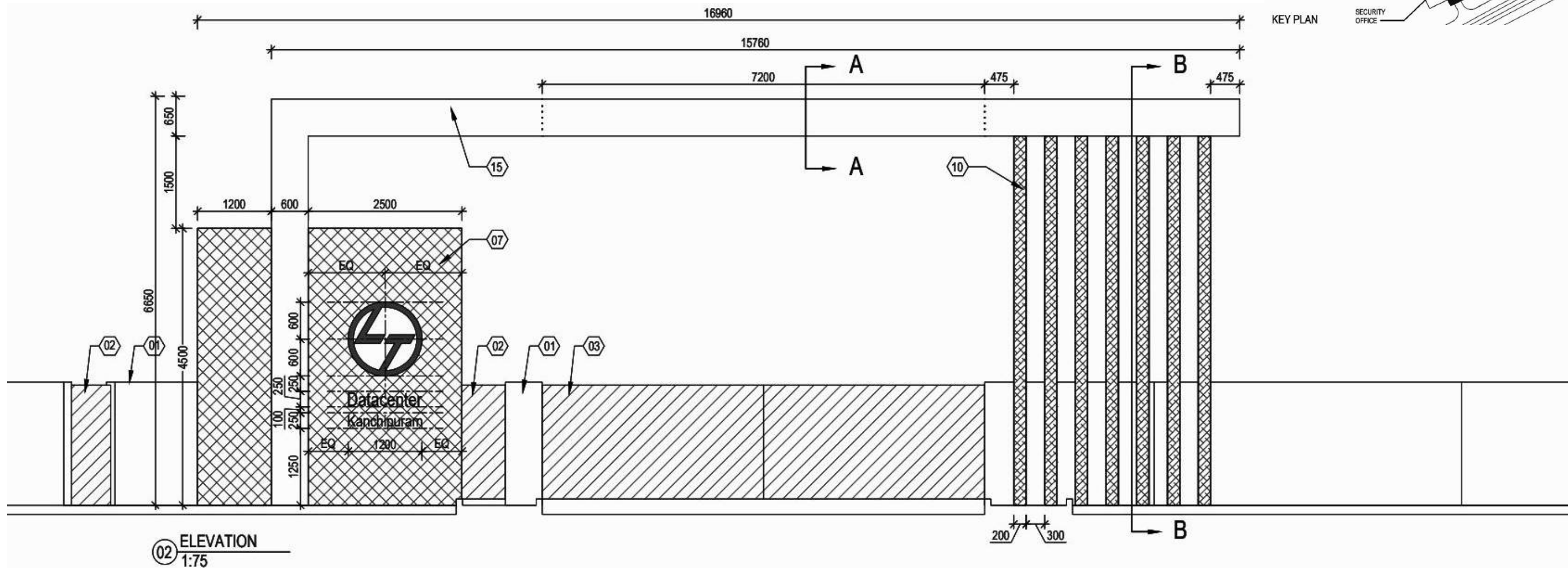
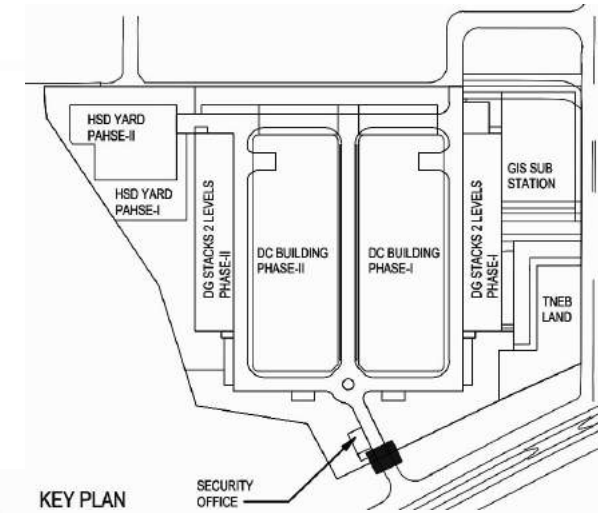
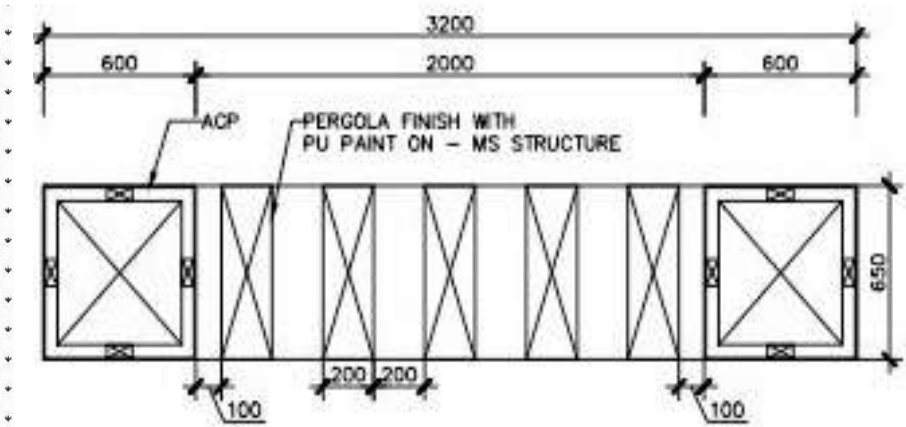
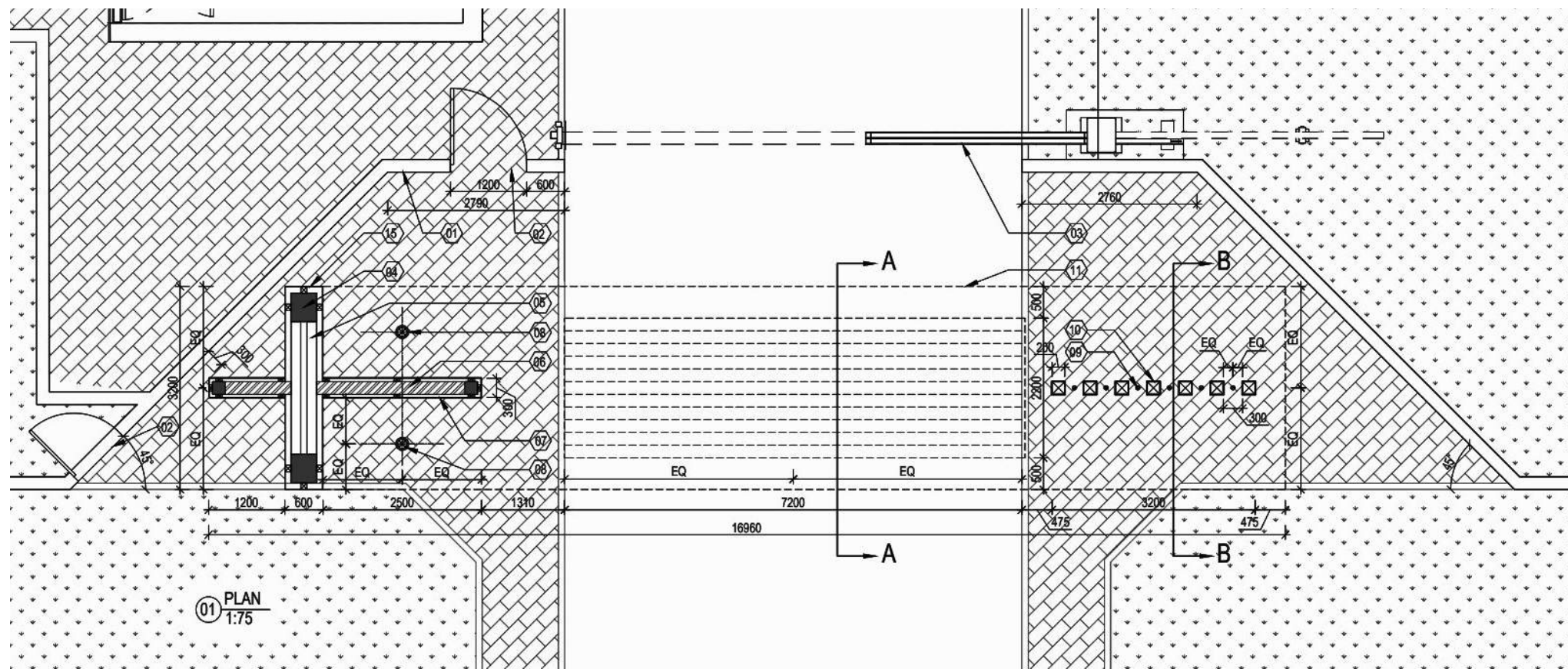
- A glass canopy provides an attractive and practical feature to the entry.
- Canopy protects people entering the building, allows natural light through the entrance area. The graphic with sunrays represents the “SUNRISE STATE”
- The pattern created by the shadows at various times of the day, create a signature entry for the campus

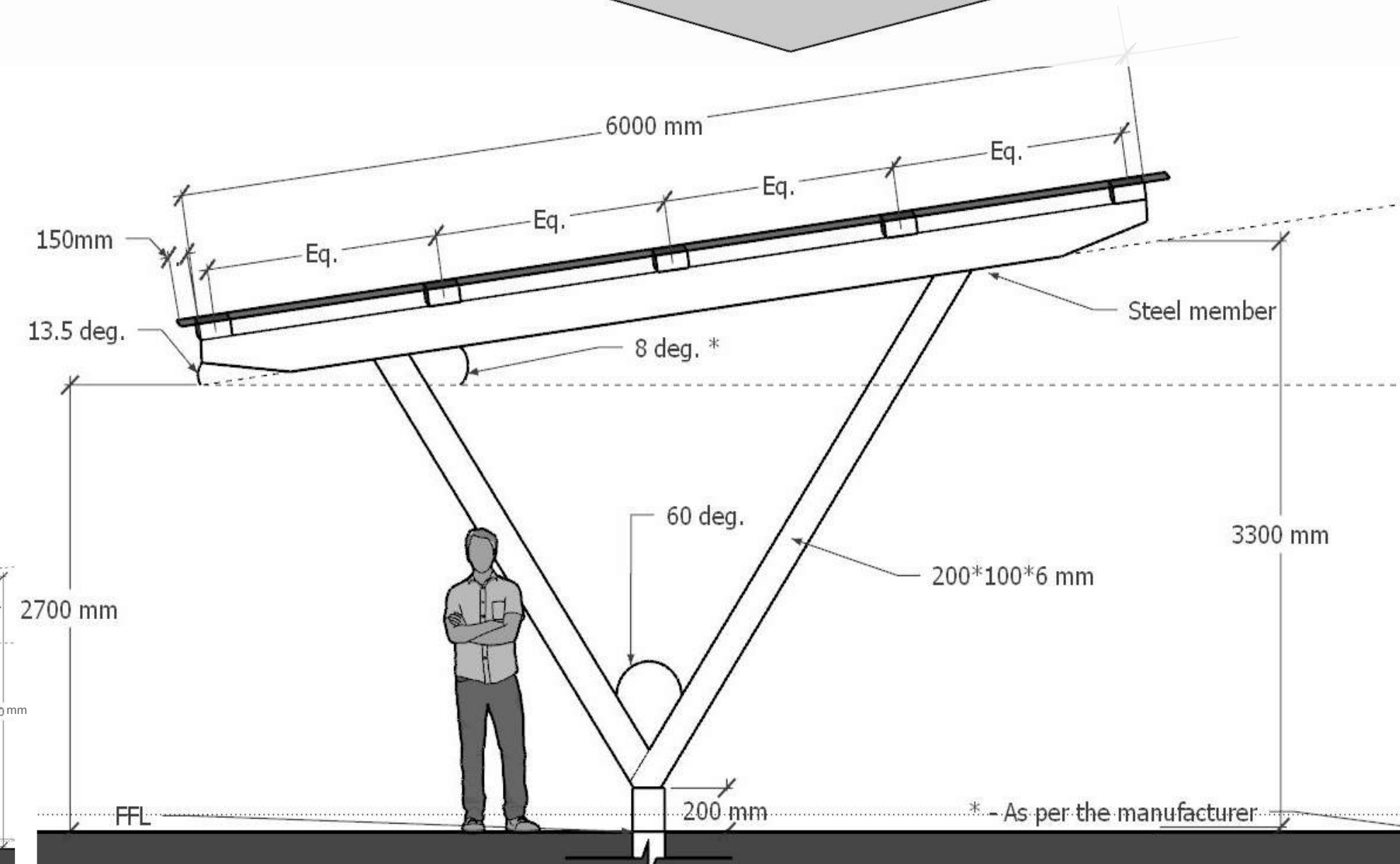
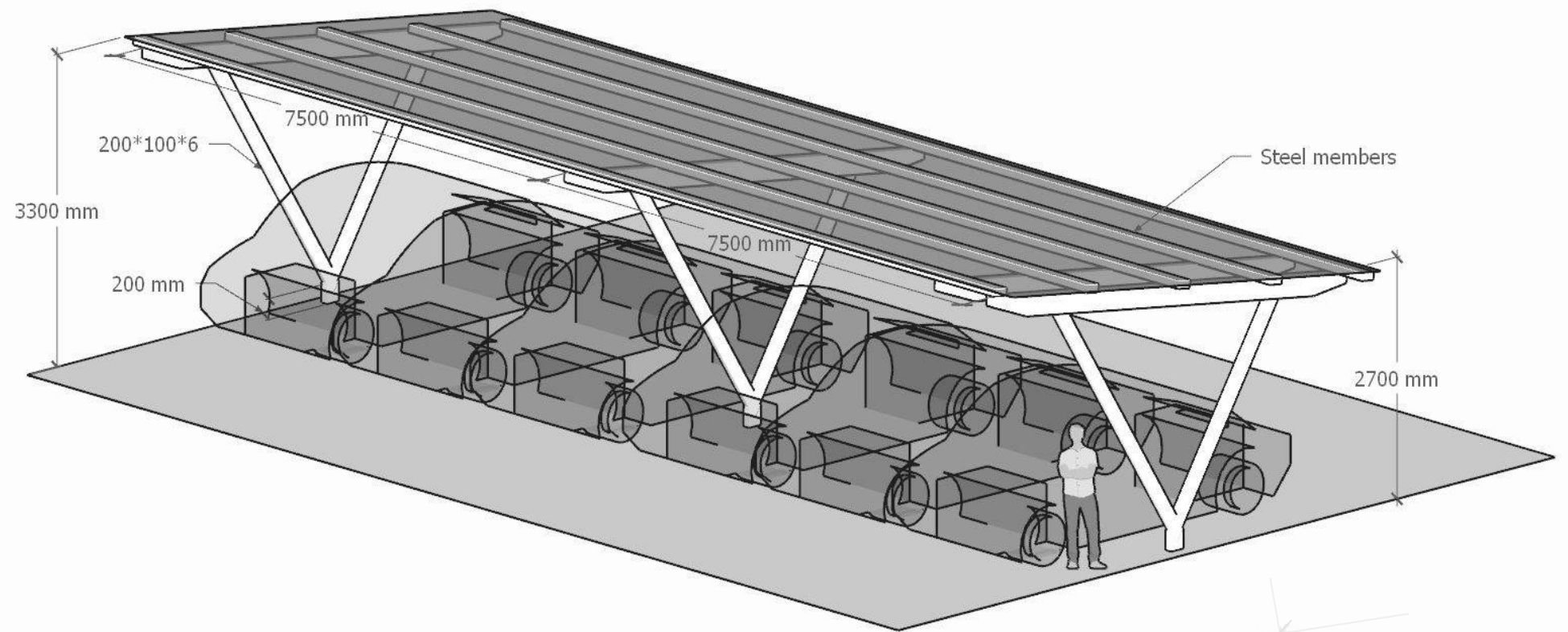
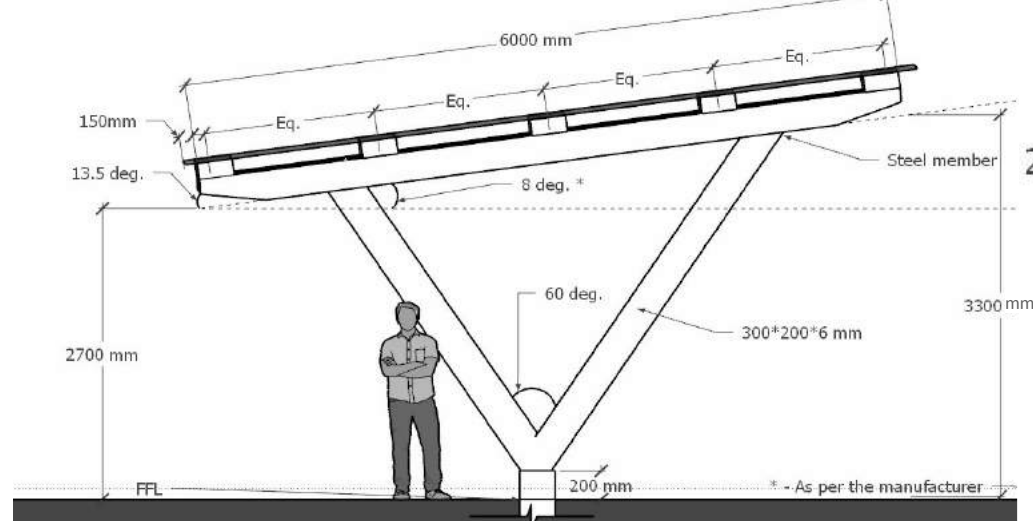
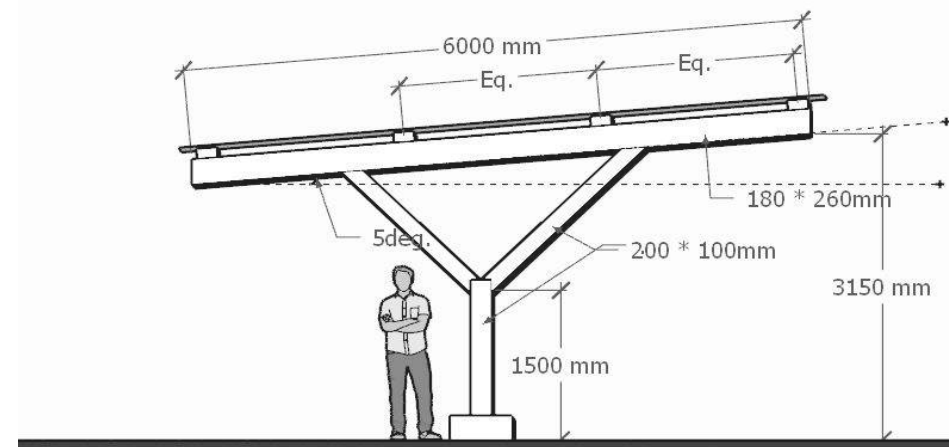
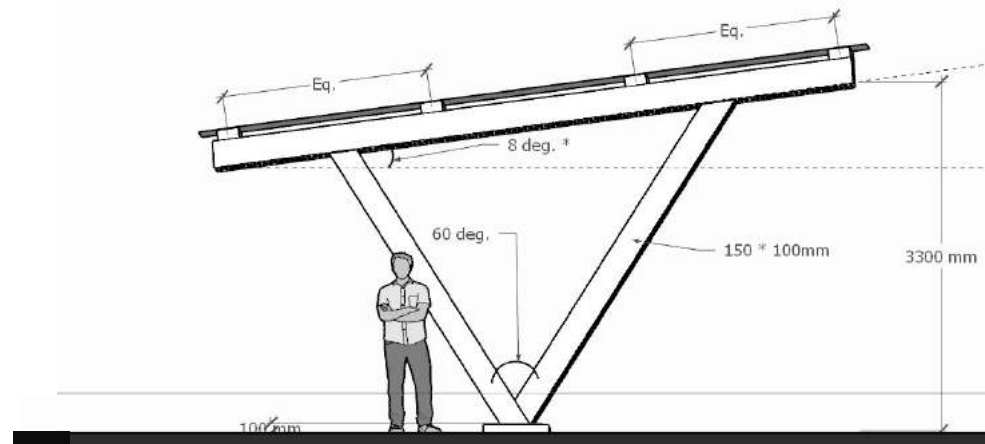
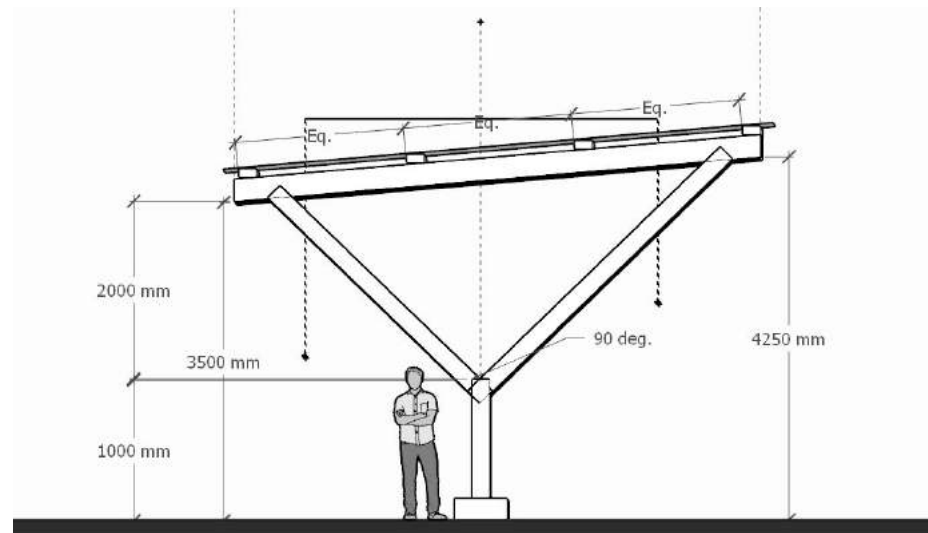








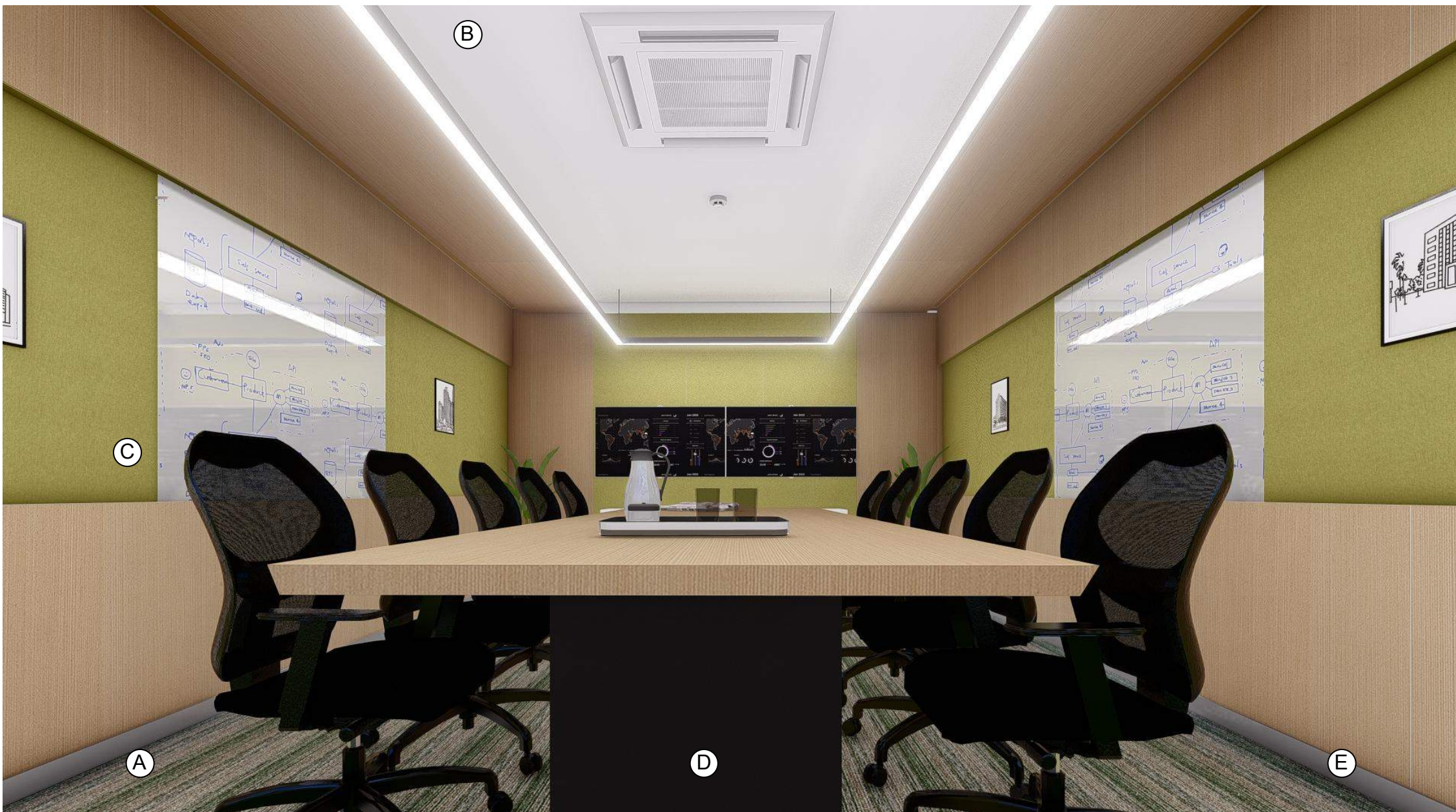




3. TC2 conference room

L&T Construction Engineering Development and Research Centres, certified for ISO: 9001 – 2008 for their operations, are located at Chennai and Kolkata. From these hubs, multi-disciplinary teams of engineers work on sophisticated software and hardware offering value-added integrated engineering services to clients across projects, with basic & detailed design and engineering support as part of the comprehensive EPC services as well as on a stand-alone basis. One of the Technology centers is being renovated, for which my team's scope was to redesign the conference rooms

Current scope of works handled : Internal design and room layout renovation, approval, sample selection, finalization and the supervization of the execution for implementation of advanced technologies and design.



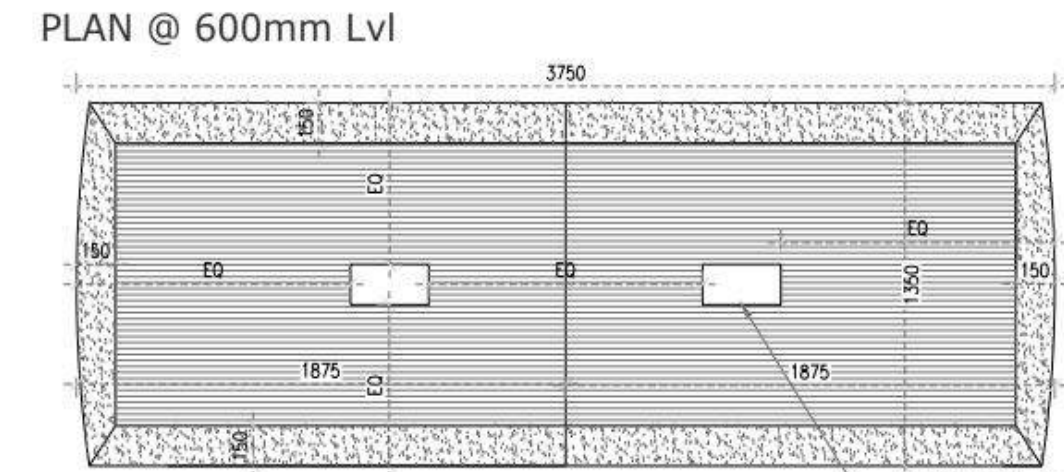
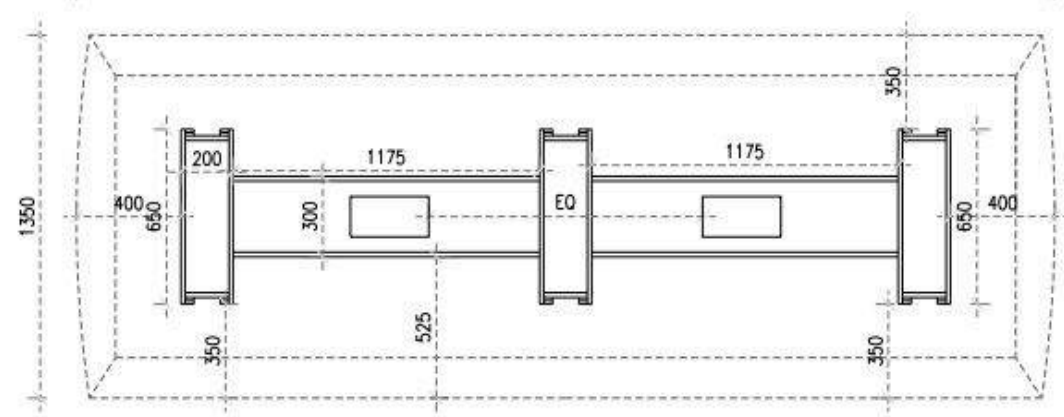
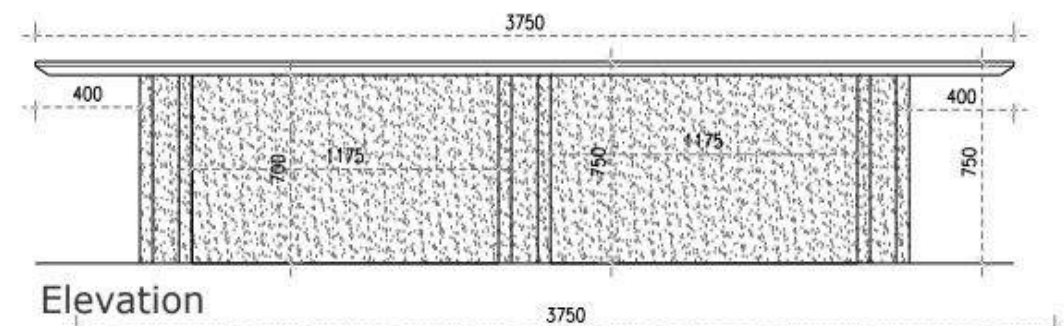
(A) Carpet flooring
Vila rica - Alvao
(Carpets inter)

(B) Gypsum Board Ceiling
Saint gobain gyproc

(C) Fabric Board
Eclipse - Apple green
(Response)

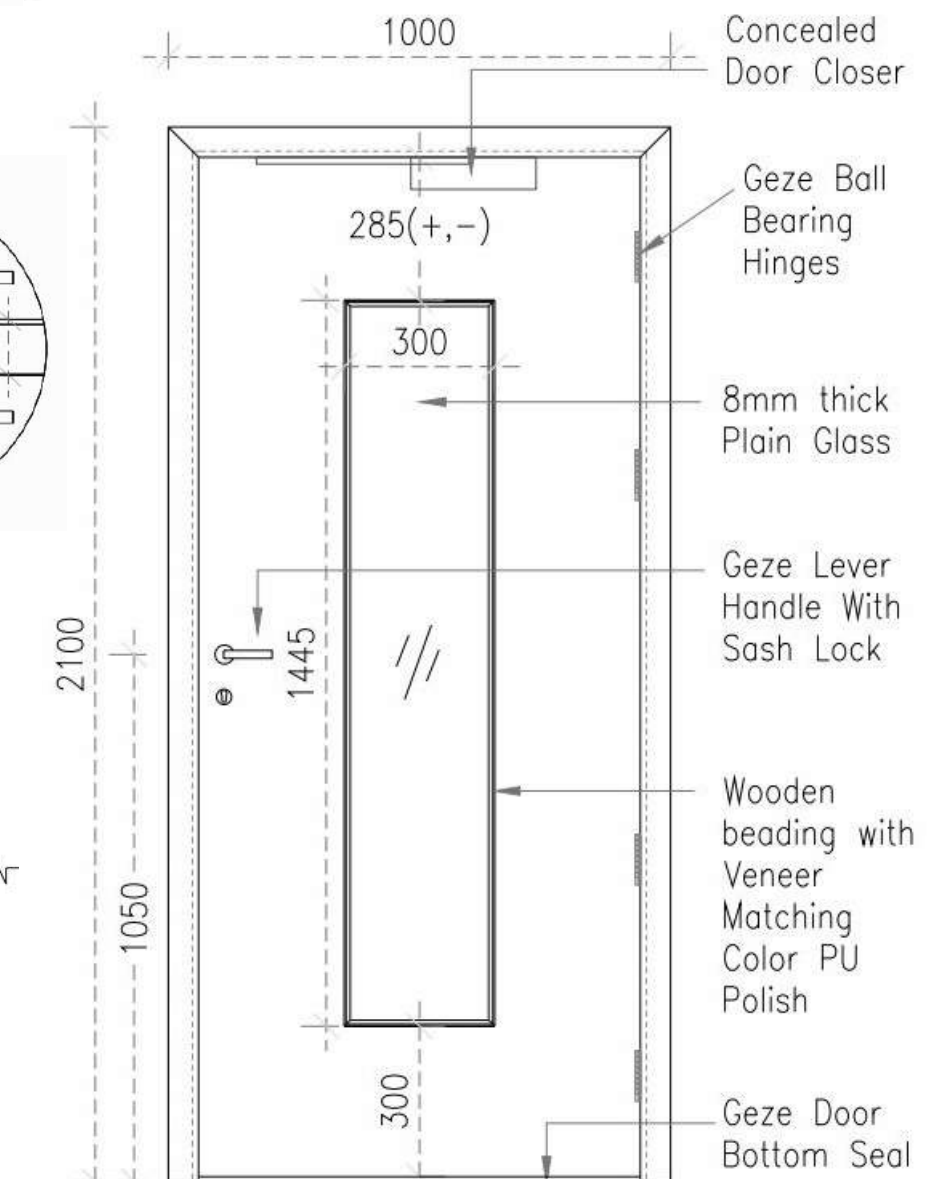
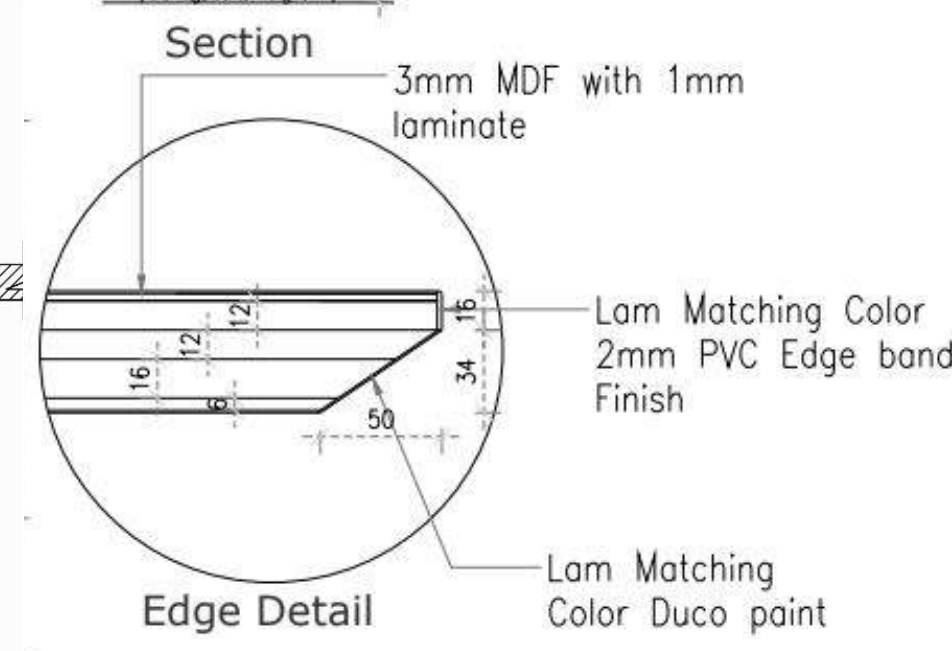
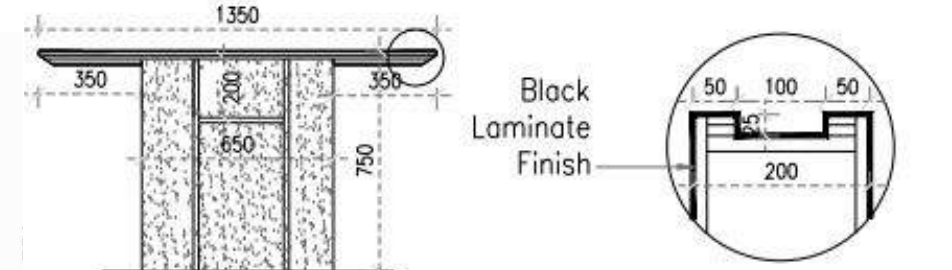
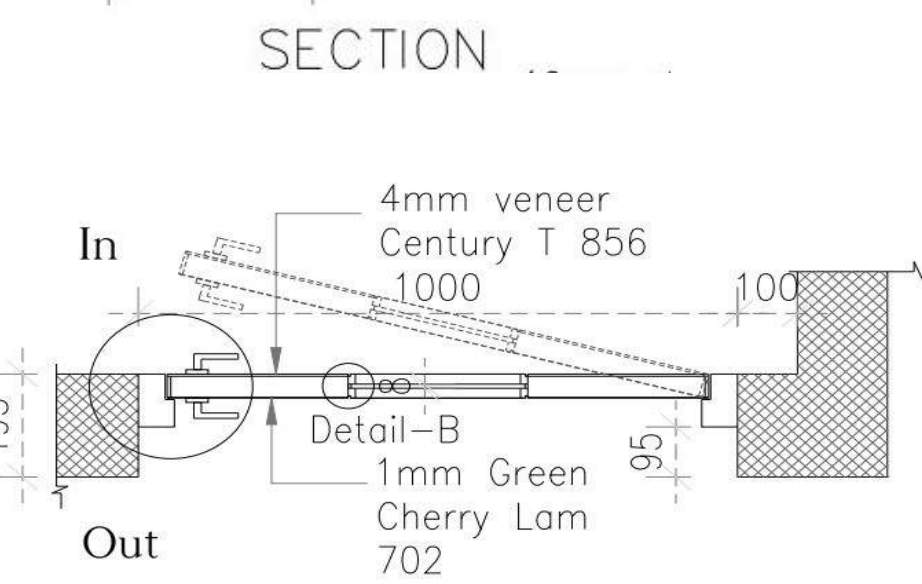
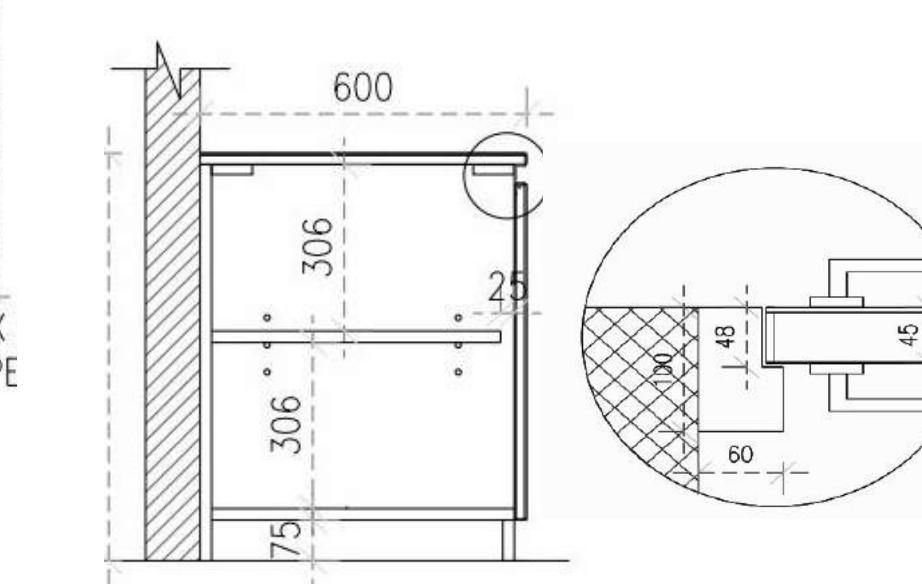
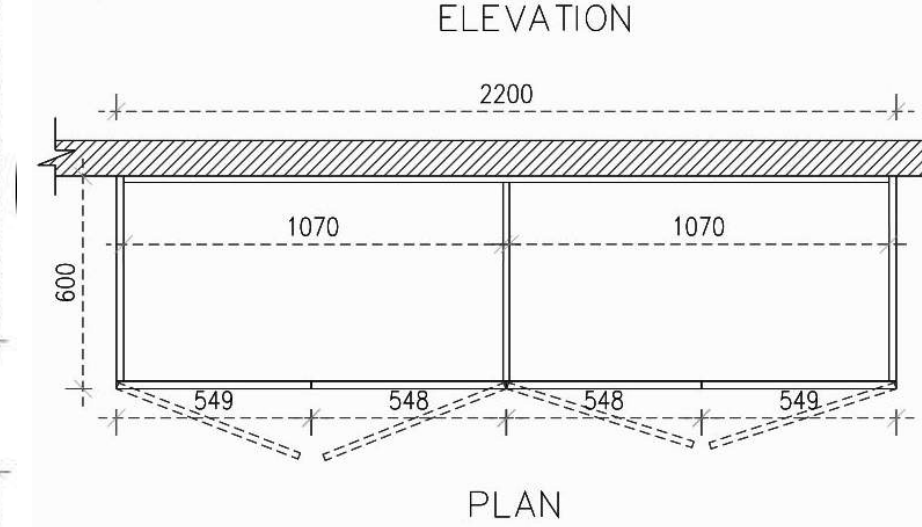
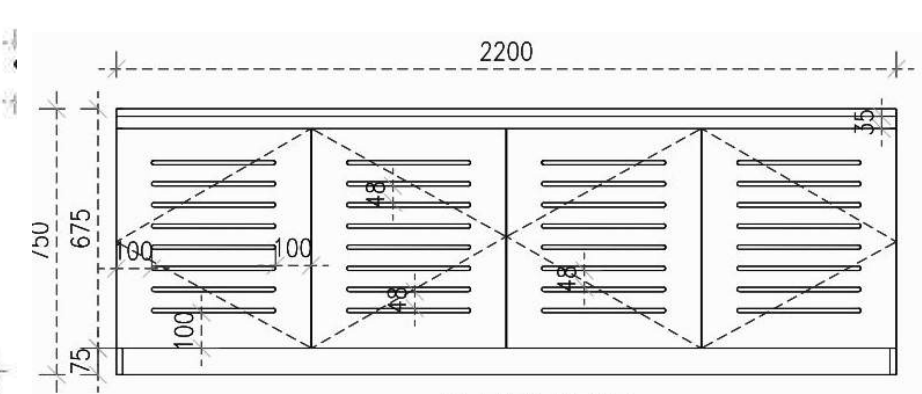
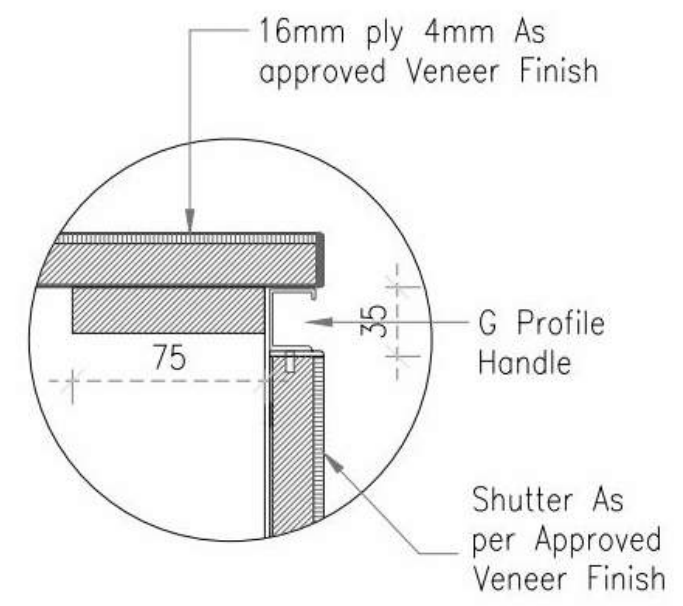
(D) Laminate
Black leather
(Merino)

(E) Aluminium Skirting



POP UP BOX
CLIENT SCOPE

- Veneer-Flaxen Wash Veneer -T 856 Century
- Merino-21066 NL Black



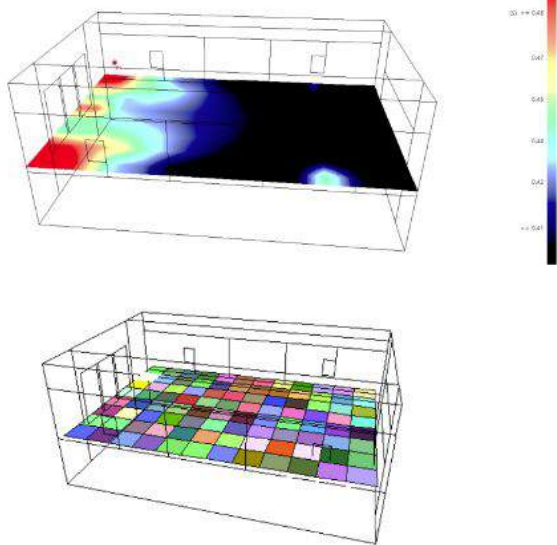
NOT TO SCALE

Option 1 - Mineral fibre ceiling at centre and Perforated Gypsum at Edges



Conceptual View

Obtained RT = 0.47



Analysis Observation

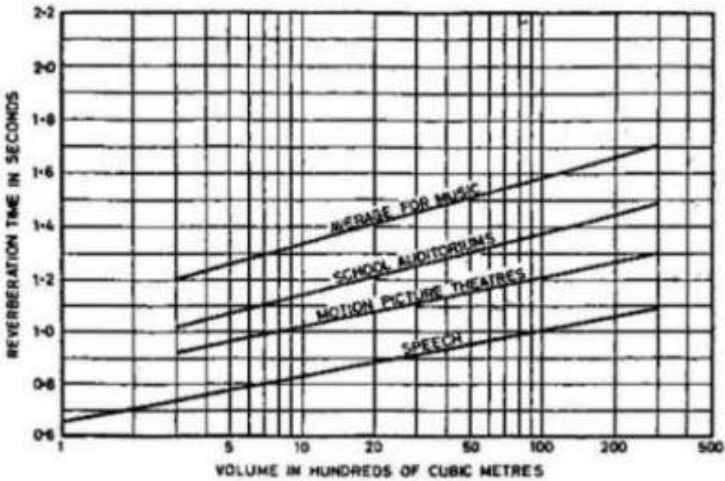
- The desired RT values:
- Option 1 : Mineral fibre ceiling at centre and Perforated Gypsum at Edges = **0.47**
 - Option 2 : Mineral fibre ceiling at Edges and Perforated Gypsum at Center. = **0.51**
 - Option 3 : Mineral fibre ceiling at centre and laminate along the edge. = **0.62**
 - Option 4: Mineral fibre ceiling at centre surrounded by laminates and gypsum = **0.57**
 - Option 5: Paint at centre and gypsum ceiling at the edges = **0.91**

NRC – Requirement of the Materials

S.NO.	Material	NRC
1	Perforated gypsum board	0.5
2	Mineral fibre board	0.7

NOTE: For Option 3 & 4 Mineral Fiber of NRC 0.9 has been considered as per discussion.

Space	Required RT(s)	Code reference
conference room	0.6-0.8	IS 2526 -1963 (Reaffirmed 2010)

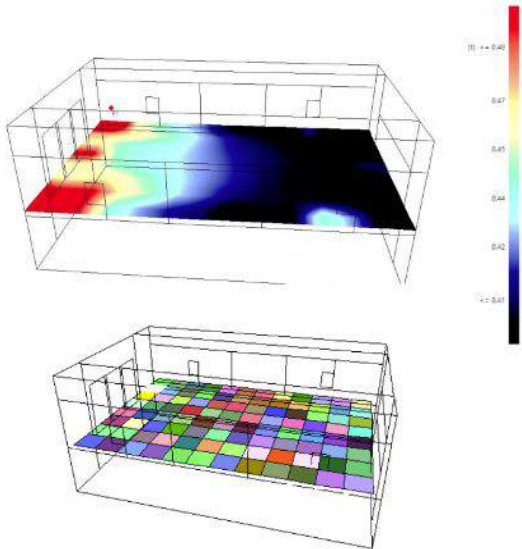


Option 2 - Mineral fibre ceiling at Edges and Perforated Gypsum at Center.



Conceptual View

Obtained RT = 0.51

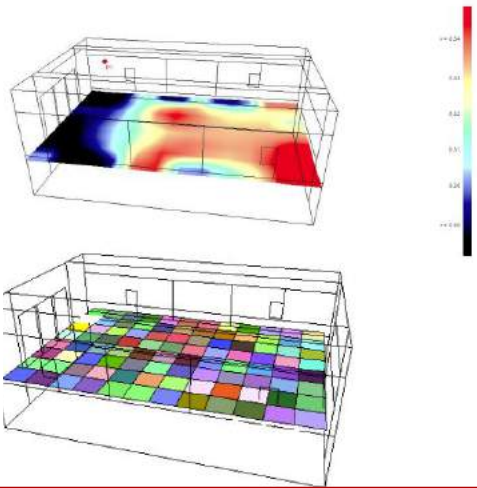


Option 4 - Mineral fibre ceiling at centre surrounded by laminates and gypsum .



Conceptual View

Obtained RT = 0.57

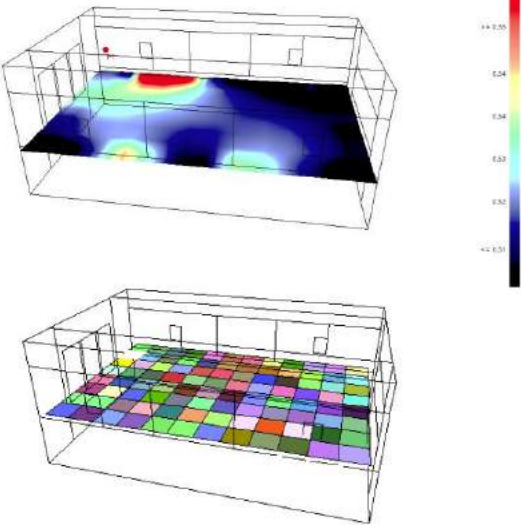


Option 3 - Mineral fibre ceiling at Centre and Laminate along e



Conceptual View

Obtained RT = 0.52



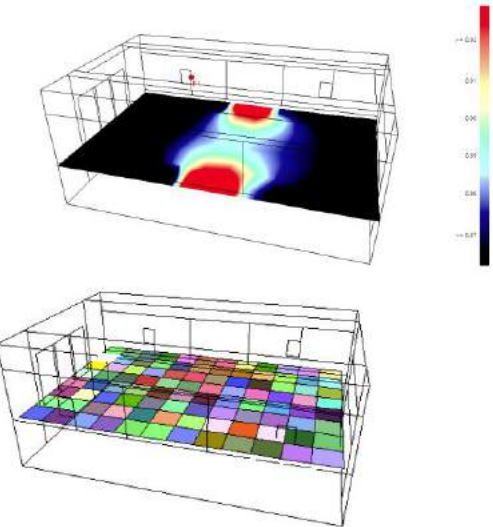
RECOMMENDED

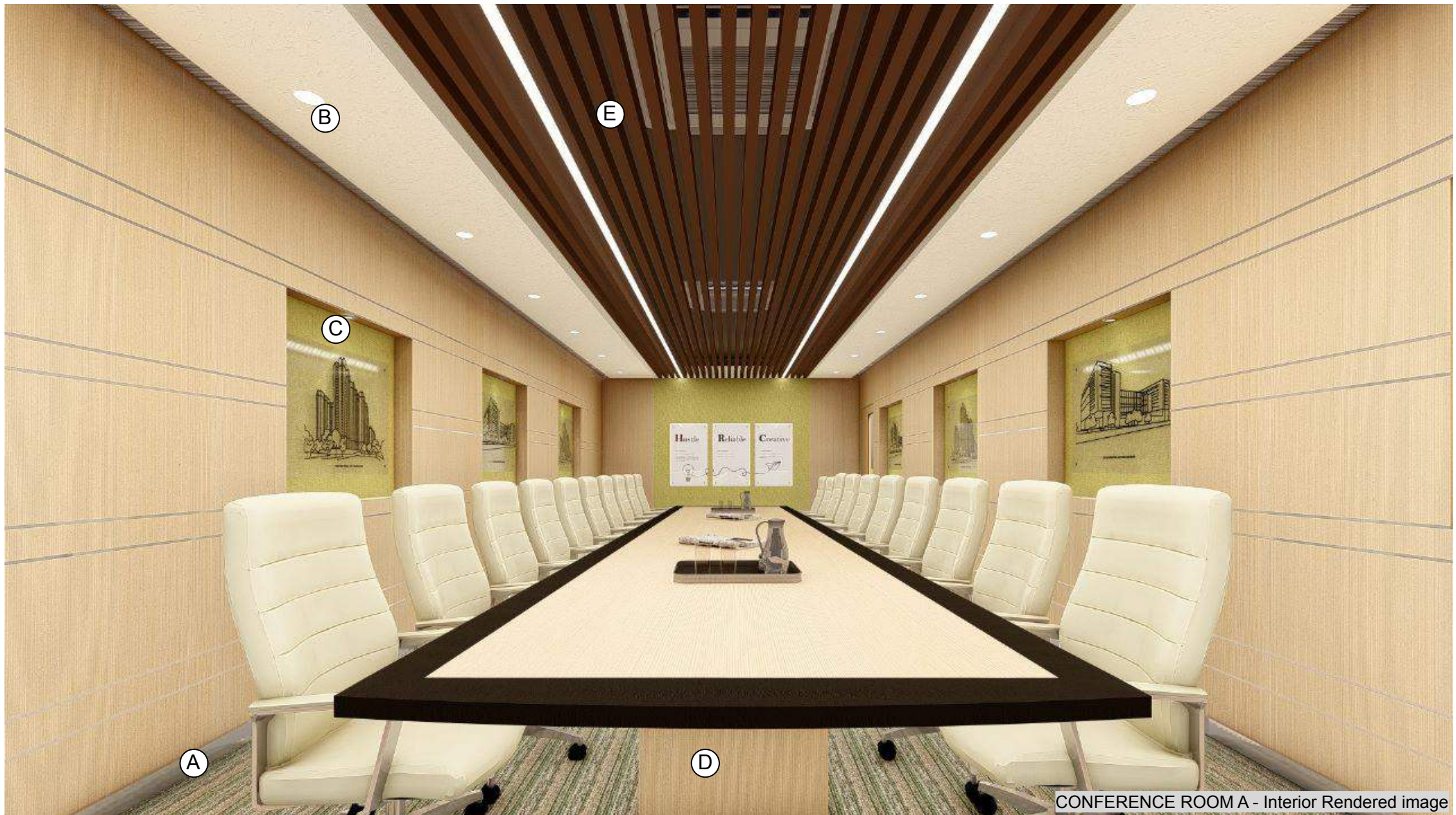
Option 5 - Paint at centre and gypsum ceiling at the edges .



Conceptual View

Obtained RT = 0.91





CONFERENCE ROOM A - Interior Rendered image

(A) Carpet flooring
Vila rica - Alvao
(Carpets inter)

(B) Gypsum Board Ceiling
Saint gobain gyproc

(C) Fabric Board
Eclipse - Apple green
(Response)

(D) Laminate
Black leather
(Merino)

(E) Metal baffles
Ral - 8028

4. ST TELEMEDIA DATA CENTER - NAVI MUMBAI DC BUILDING

This datacenter is proposed in navi mumbai , for which the conceptual design is made by Jacobs and the project was handed over to L&T construction by ST Telemedia team.

Current scope of works handled : Initially the DC building phase is being done for which the interior layouts were approved and the interior design schemes were being done , every interiors were to be aligned with the playbook that STT made for there own design scheme , so the every interiors were revised according to the playbook , our finishing schedule , and BOQ that was made after the tender phase, after the submission of first initial mood board , we were working on the interior corrections that was made by the clients , and also our own plan corrections , after several stages of revision finally it got approved and we have started collection of samples for the approved views , meanwhile the boq and finishing schedule was revised as per the approved views , since our team should coordinate with the MEP team there are some revisions needed to be made in the internal layout,after these stages the views were sent to acoustics team and there output was being processed and acoustical requirements were solved with quantity change in every materials used based on there NRC rate.



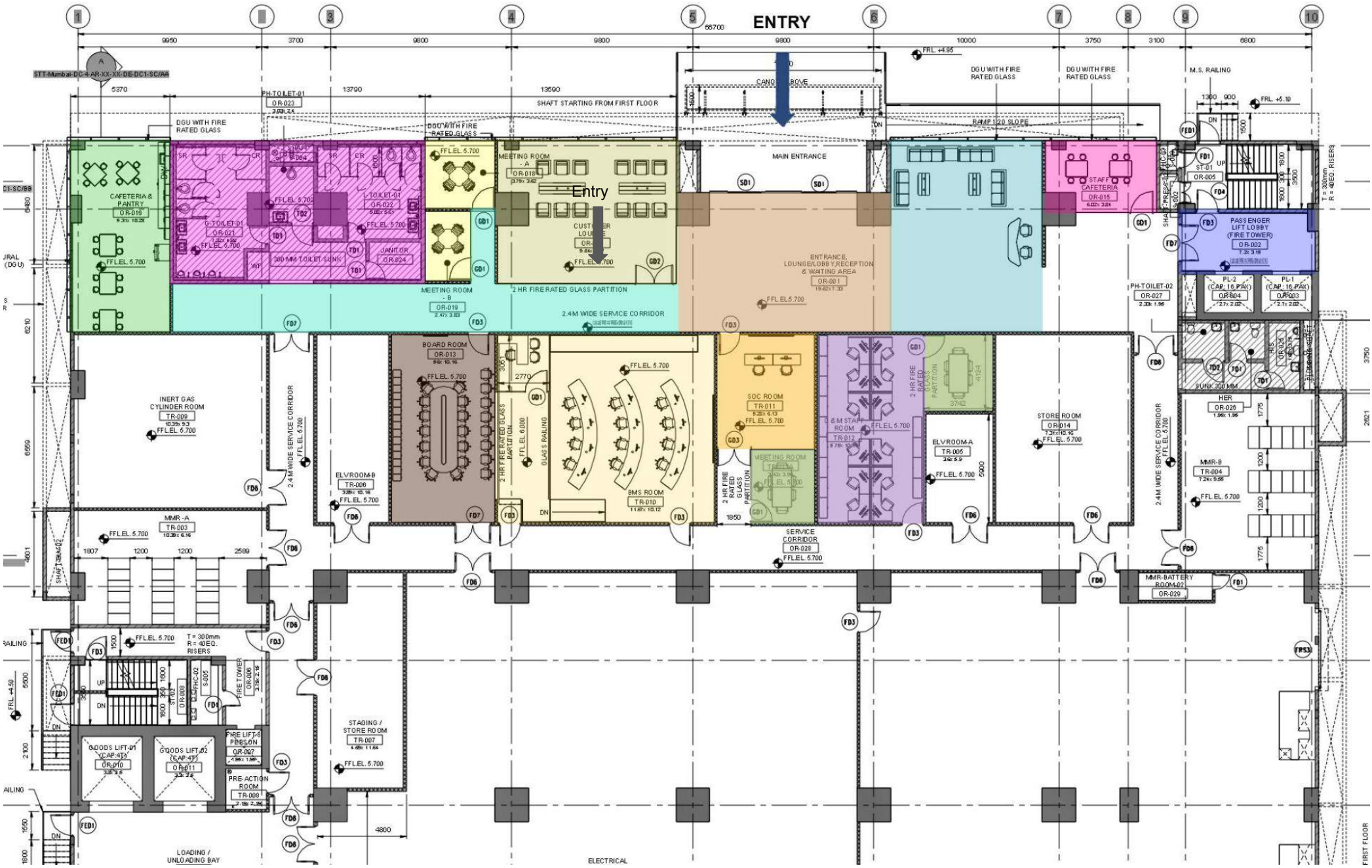
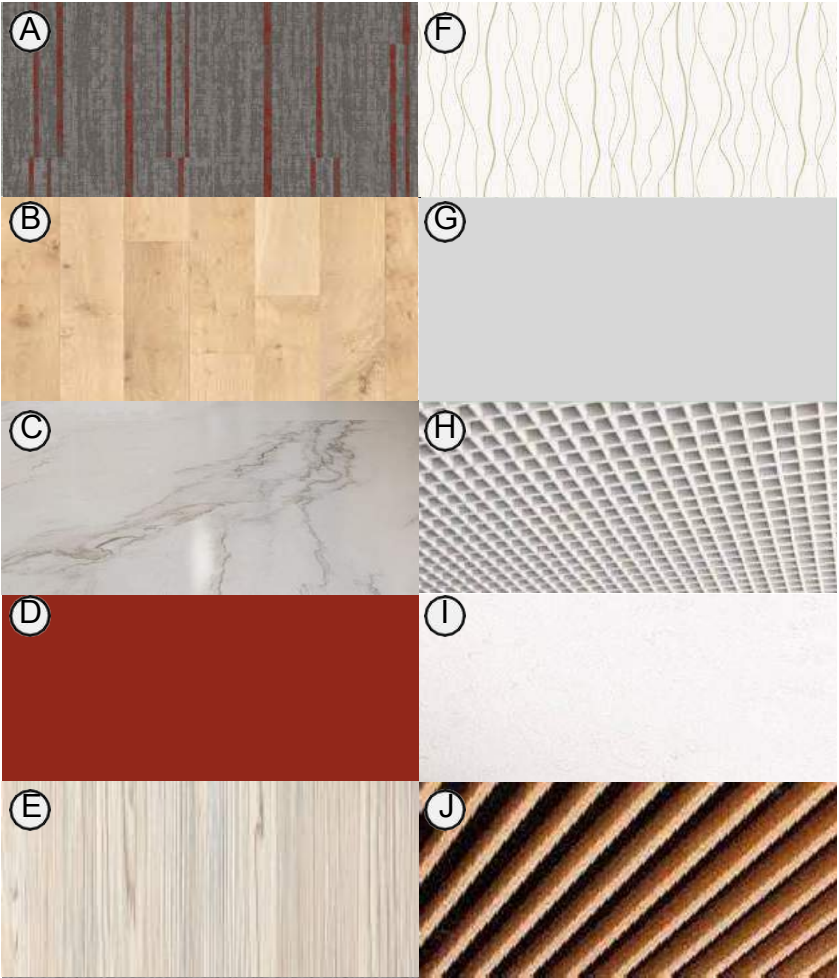


MAKE LIST

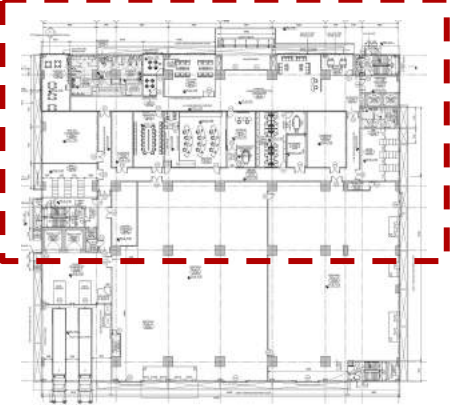
- Carpet - Interface, Shaw or eq
- Vitrified tiles - Johnson, Bell Ceramics, Somany, Nitco, Kajaria
- Laminates - Greenlam, Merino, Century
- Wallpapers - Murraspec, Vescom or eq
- Paints - Asian, Berger, Nerolac
- False ceilings - Saint Gobain, Armstrong, LA Gyp, USG, AMF, Ceiflo, LD2

MATERIALS

- Ⓐ Carpet flooring
- Ⓑ Vitrified tiles
- Ⓒ Marble
- Ⓓ Softboards
- Ⓔ Laminate
- Ⓕ Wallpapers
- Ⓖ Paint
- Ⓗ Open cell ceilings
- Ⓘ Gypsum board
- ⓵ Baffle ceilings

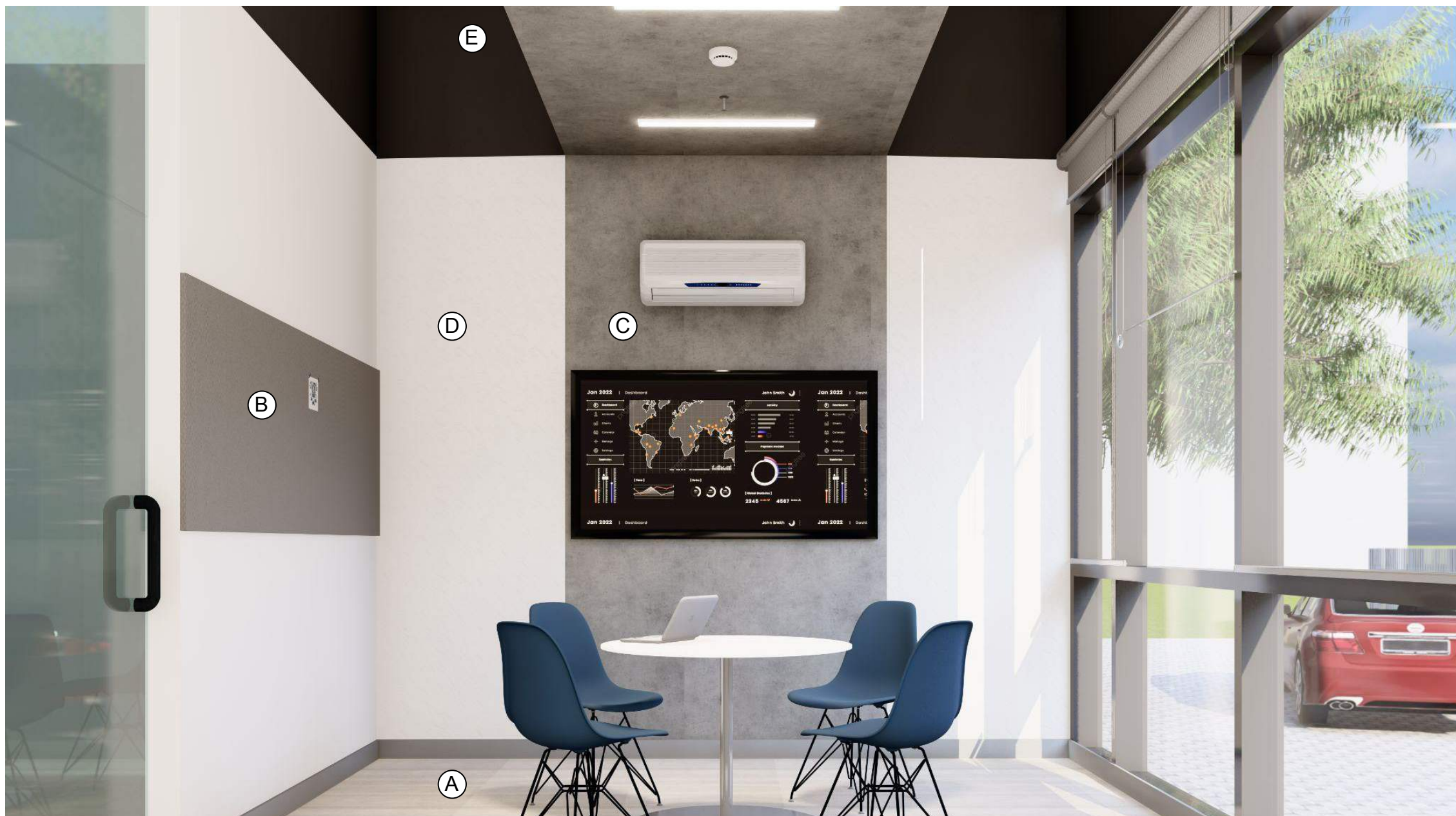


Key plan



SPACES

- Entrance lobby
- Customer lounge
- Cafeteria
- Staff cafeteria
- Passenger lift lobby
- Board room
- SOC room
- BMS room
- Meeting room
- Toilet



(A)



Vitrified tile
Elite crema 60*60
(Somany)

(B)



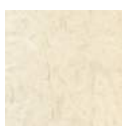
Soft BBoard
Grey - Festival

(C)



Texture paint
Asian paints

(D)

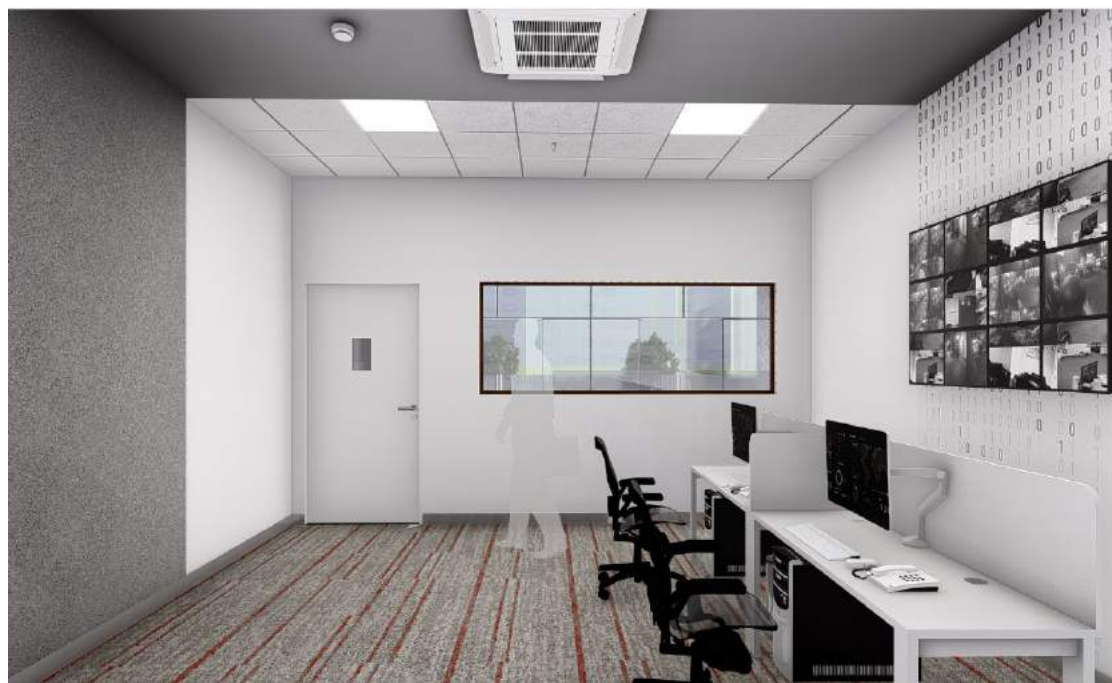
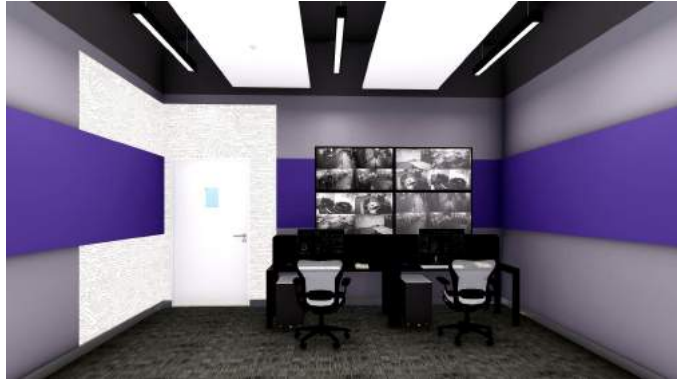


Acrylic Emulsion Paint
Snow white

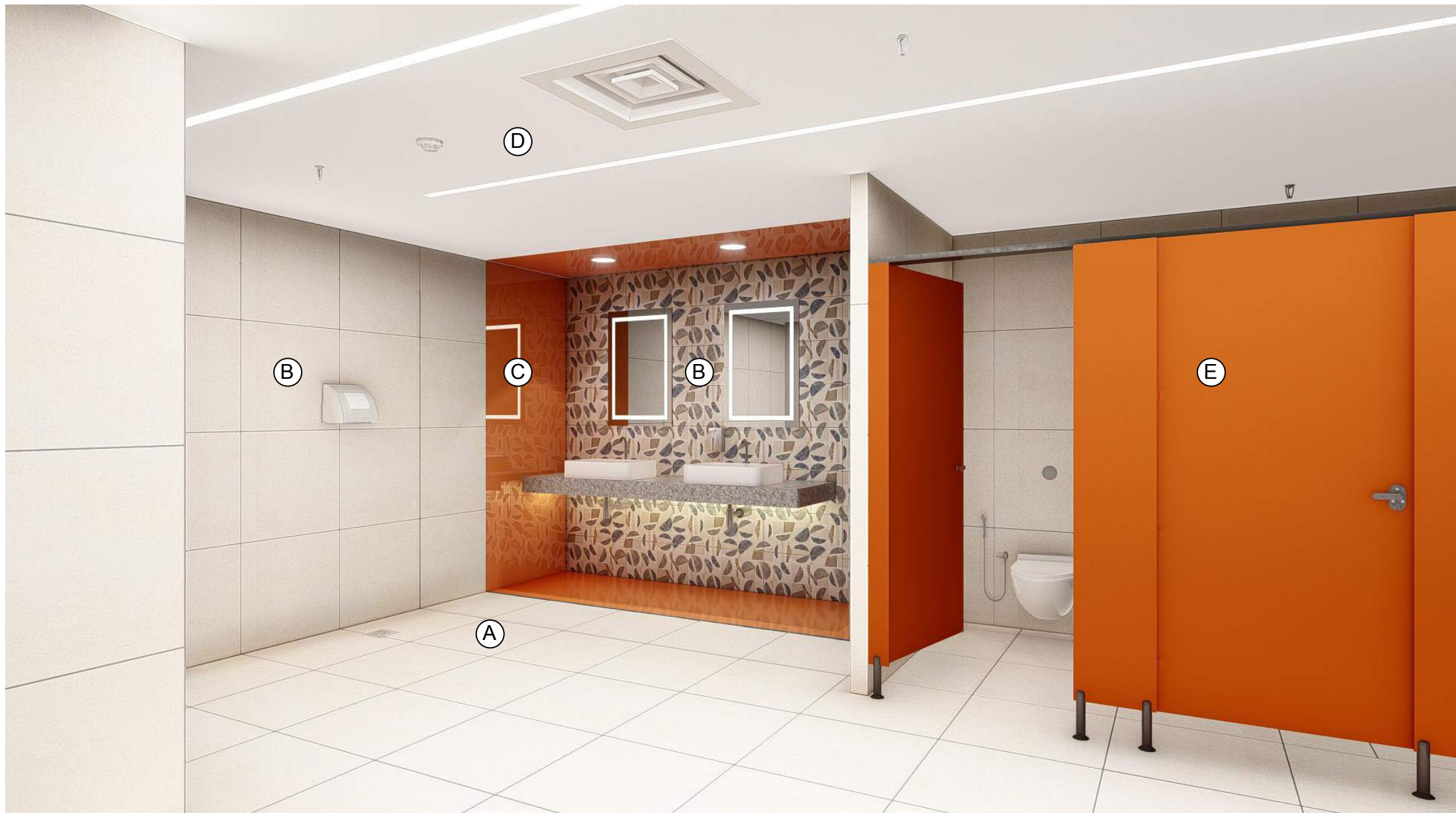
(E)



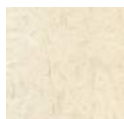
Cement Paint
Ral - 7024



- (A)  Vitrified tile
Pine wood
(Somany)
- (B)  Metal Baffles
- (C)  Wall Graphics On
Acrylic Emulsion
Paint
- (D)  Wallpaper
- (E)  Laminate
High land pine

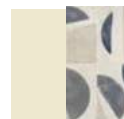


(A)



Vitrified Tile
Champion Crema
(Somany)

(B)



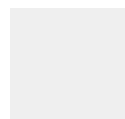
Ceramic Tile
Milton Bianco
Camrose

(C)



Epoxy Finish

(D)



Gypsum Ceiling
Gyproc _ Saint Gobain

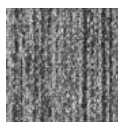
(E)



Laminate
Saffron - Merino



(A)



Carpet Flooring
Radiant Interaction
(Carpets inter)

(B)



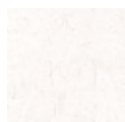
Texture Paint
ASIAN pAINTS

(C)



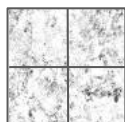
Acrylic Emulsion Paint

(D)



Wall Graphics

(E)



Grid Ceiling

RT Requirement

Space	Required RT(s)	Code reference
Open Office & OM Staff office	Less than 1	NBC 2016
Meeting Rooms & Board Room	0.6-0.8	IS 2526 -1963 (Reaffirmed 2010)

Purpose

Acoustics analysis and validation of proposed Interior proposal for spaces – ground floor

- Open Office
- 4 & 6 pax Meeting Room,
- Board Room
- OM Staff Office

Architectural Input

- The acoustical simulation is done based on the inputs given by the architect.

Software used

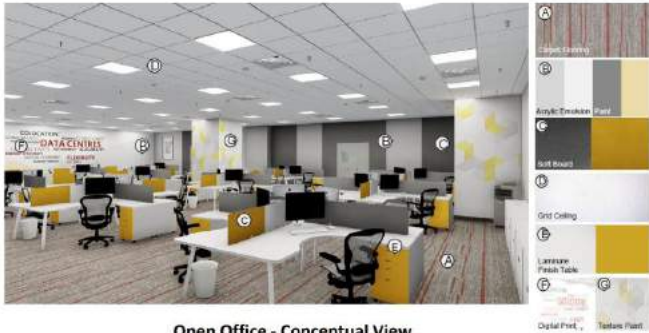
- Odeon 17.12

Open office

Board room

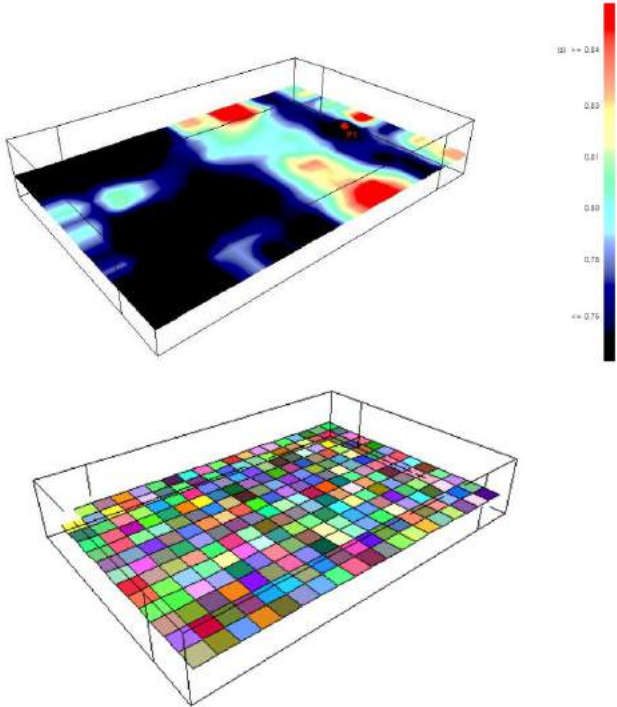
Analysis Observation

S.NO.	SPACE	RT REQUIREMENT	RT ACHIEVED(S)
1	Open Office	Less than 1s	0.9



Open Office - Conceptual View

Odeon Simulation result



Inference

The desired RT value achieved considering -
*False ceiling - Overall Mineral Fibre Grid of NRC 0.7
* Soft board - Fabric Panel Board of NRC 0.60 for an area of 30 - 35 sqm.

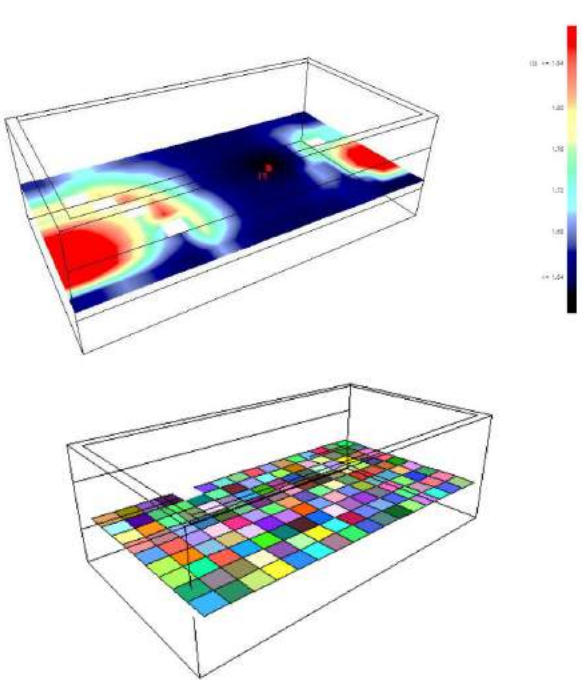
Analysis Observation

S.NO.	SPACE	RT REQUIREMENT	RT ACHIEVED(S)
1	Board Room	0.6-0.8	0.77



Board Room- Conceptual View

Odeon Simulation result



Inference

The desired RT value achieved considering -
*False ceiling - Mineral Fibre Grid of NRC 0.7& gypsum ceiling along edges.
* Soft board - Fabric Panel Board of NRC 0.60 for an area of 20 - 25 sqm.

Meeting rooms

OM Staff space

Analysis Observation

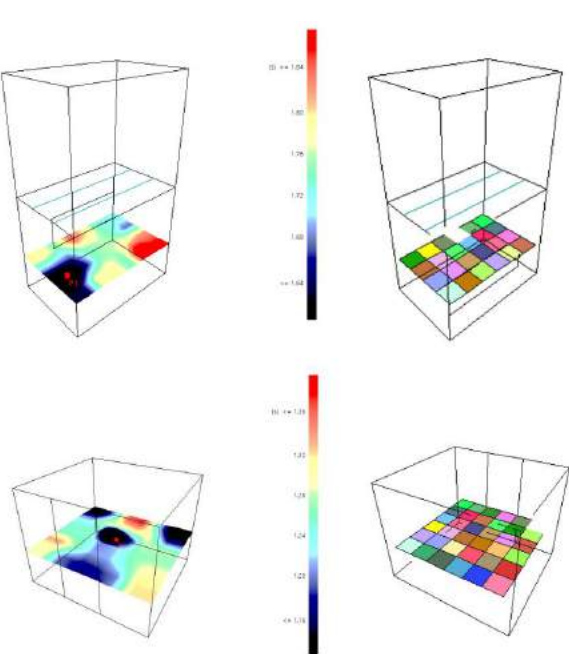
S.NO.	SPACE	RT REQUIREMENT	RT ACHIEVED(S)
1	4 pax Meeting Room & 6 pax Meeting Room	0.6-0.8	0.8



4 pax Meeting- Conceptual View

6 pax Meeting- Conceptual View

Odeon Simulation result



Inference - The desired RT value achieved considering -
4 pax meeting room:
* False ceiling - Mineral Fibre Grid of NRC 0.7
* Soft board - Fabric Panel Board of NRC 0.65 for an area of 5 - 7 sqm.
8 pax meeting room:
* False ceiling - Mineral Fibre Grid of NRC 0.7
* Soft board - Fabric Panel Board of NRC 0.65 for an area of 5 - 7 sqm.

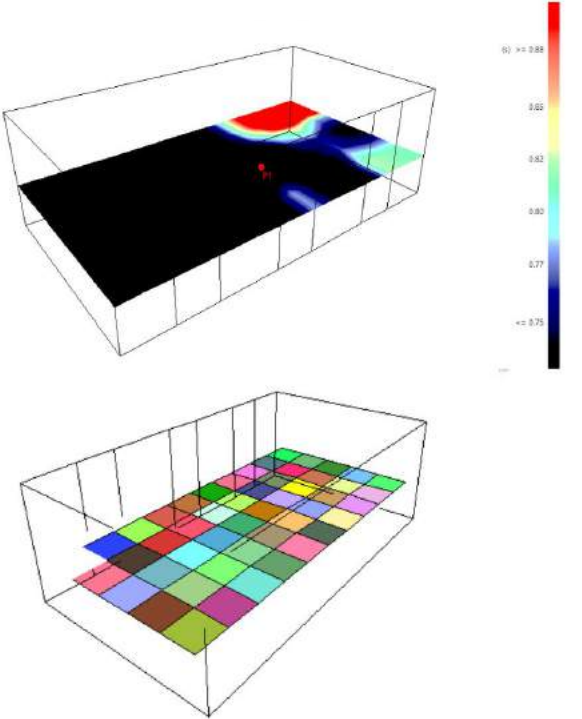
Analysis Observation

S.NO.	SPACE	RT REQUIREMENT	RT ACHIEVED(S)
1	OM Staff Office	Less than 1	0.85



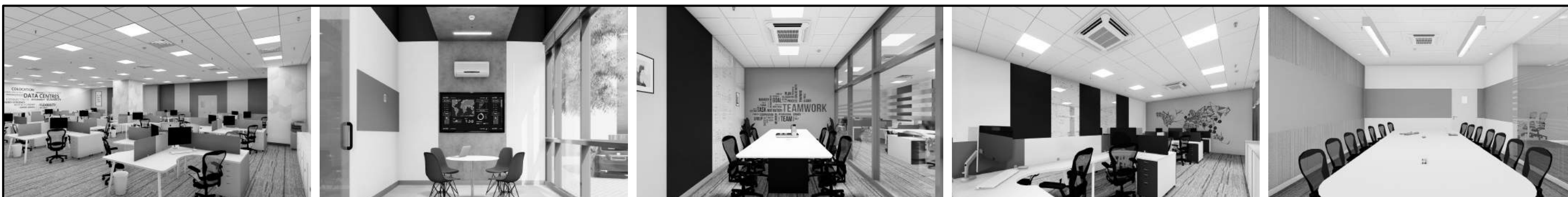
OM Staff office- Conceptual View

Odeon Simulation result



Inference

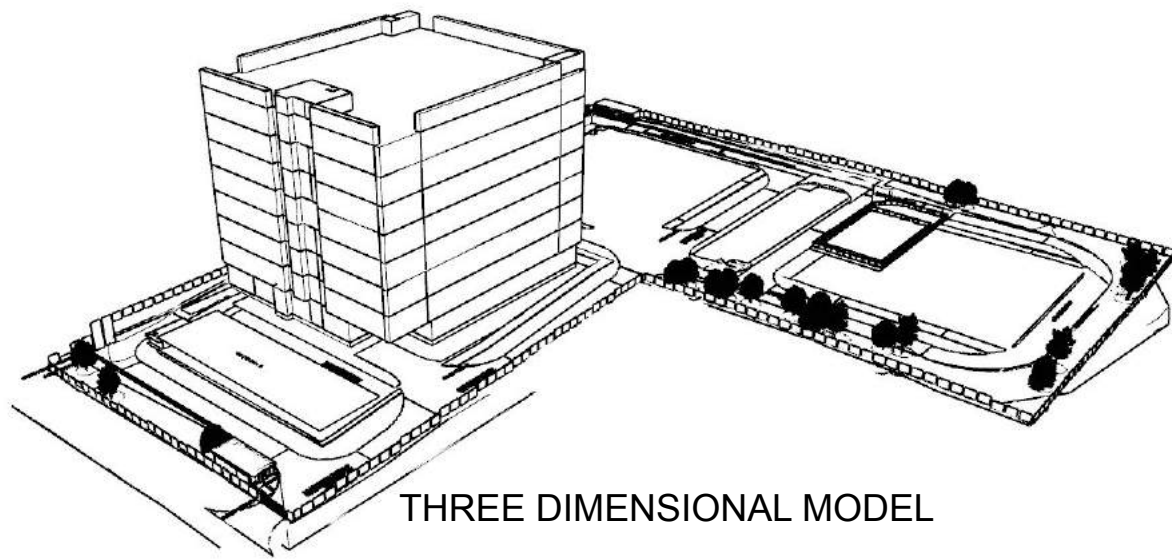
The desired RT value achieved considering -
* False ceiling - Mineral Fibre Grid of NRC 0.7
* Soft board - Fabric Panel Board of NRC 0.60 for an area of 12 - 15 sqm.



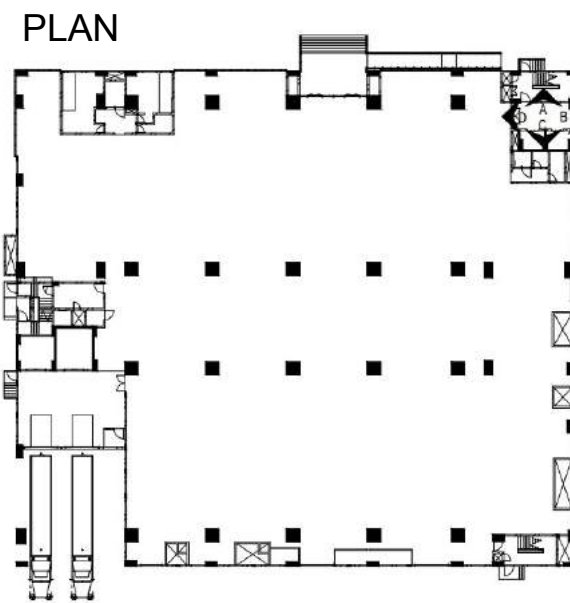
SOFTBOARD WALL PANELLING ACOUSTICAL REQUIREMENT TENDER CHECK				
S.NO	SPACE	ACOUSTICAL REQUIREMENT (SQ. M)	PROVIDED (SQ.M)	REMARKS
1	Office	30 -35	30.17	
2	Meeting room 4 pax A	12-15	7.52	As per design area is less , need to discuss
3	Meeting room 4 pax B	12-15	8.28	As per design area is less , need to discuss
4	Meeting room 6 pax (1)	5-7	4.65	
5	Meeting room 6 pax (2)	5-7	4.65	
6	Board room	20-25	19.25	
7	OM Staff room	12-15	11.16	
8	BMS room		18.6	awaiting info for acoustical requirements
9	SOC room		3.72	awaiting info for acoustical requirements
10	Reception		6.8	
		TOTAL	114.8	

LEVEL	ROOM NAME	FLOOR FINISH	SKIRTING		WALL		CEILING	
		FINISH	FINISH	H (MM)	PLASTER	FINISH	FINISH	CEILING HEIGHT (MM)
UNDER GROUND LEVEL	PUMP ROOM	CONCRETE FLOOR WITH FLOOR HARDENER	-	-	POP PUNNING	ACRYLIC EMULSION PAINT	CEMENT PAINT ON TRUE CEILING	-
GROUND FLOOR	MAIN ENTRANCE	MARBLE FLOORING	POLISHED MARBLE	100	CEMENT PLASTER	EXTERIOR GRADE TEXTURED PAINT	WOODEN FINISH PVC CEILING	4050
	ENTRANCE LOUNGE, LOBBY, RECEPTION AND WAITING AREA	MARBLE FLOORING	POLISHED MARBLE	100	POP PUNNING	COMBINATION OF , WALLPAPER, SOFTBOARD, LAMINATE PANELING AND LACQUERED GLASS	CEMENT PAINT ON TRUE CEILING + BAFFLE CEILING (WOODEN FINISH)	4050
	CUSTOMER LOUNGE	CARPET TILE FLOORING	ALUMINIUM	75	POP PUNNING	COMBINATION OF ACRYLIC EMULSION PAINT AND DIGITAL PRINT	CEMENT PAINT ON TRUE CEILING + SUSPENDED GRID CEILING + GYPSUM WITH ACRYLIC EMULSION PAINT	3600
	MEETING ROOM - A AND MEETING ROOM - B	CARPET TILE FLOORING	ALUMINIUM	75	POP PUNNING	COMBINATION OF ACRYLIC EMULSION PAINT, SOFTBOARD, TEXTURED PAINT AND LACQUERED GLASS	CEMENT PAINT ON TRUE CEILING + + GYPSUM WITH TEXTURE PAINT	3200
	CORRIDOR	MARBLE FLOORING	POLISHED MARBLE	100	POP PUNNING	COMBINATION OF ACRYLIC EMULSION PAINT AND DIGITAL PRINT	CEMENT PAINT ON TRUE CEILING + OPEN CELL CEILING	3600
	CAFETERIA AND PANTRY	MARBLE FLOORING	POLISHED MARBLE	100	POP PUNNING	COMBINATION OF ACRYLIC EMULSION PAINT, TEXTURED PAINT AND BACK PAINTED GLASS	CEMENT PAINT ON TRUE CEILING + OPEN CELL CEILING + GYPSUM CEILING+ TEXTURED PAINT+ ACRYLIC EMULSION PAINT	3600
	STAFF CAFETERIA	VITRIFIED TILES	VITRIFIED TILES	100	POP PUNNING	COMBINATION OF ACRYLIC EMULSION PAINT, WALLPAPER AND DIGITAL PRINT	CEMENT PAINT ON TRUE CEILING + BAFFLE CEILING(WOODEN FINISH)	3600
	PASSENGER LIFT LOBBY (FIRE TOWER)	MARBLE FLOORING	POLISHED MARBLE CLADDING	FC	-	MARBLE CLADDING	CEMENT PAINT ON TRUE CEILING + SUSPENDED GRID CEILING + GYPSUM WITH ACRYLIC EMULSION PAINT	3600
	STAIRCASE - 01	POLISHED GRANITE FLOORING	POLISHED GRANITE	100	POP PUNNING	ACRYLIC EMULSION PAINT	CEMENT PAINT ON TRUE CEILING	-
	STAIRCASE - 02 & STAIRCASE - 03	20MM THK POLISHED KOTA STONE FLOORING	KOTA STONE	100	POP PUNNING	ACRYLIC EMULSION PAINT	CEMENT PAINT ON TRUE CEILING	-
	FIRE TOWER	20MM THK POLISHED KOTA STONE FLOORING	KOTA STONE	100	POP PUNNING	ACRYLIC EMULSION PAINT	CEMENT PAINT ON TRUE CEILING + SUSPENDED GRID CEILING	3200
	BOARD ROOM, BMS ROOM, SOC ROOM, STAFF MEETING ROOM, O&M STAFF ROOM	CARPET TILE FLOORING	ALUMINIUM	75	-	COMBINATION OF ACRYLIC EMULSION PAINT, SOFTBOARD , LAMINATE PANELING AND DIGITAL PRINT	CEMENT PAINT ON TRUE CEILING + SUSPENDED GRID CEILING + GYPSUM WITH ACRYLIC EMULSION PAINT	3200
	STORE ROOM, SERVICE CORRIDOR - A, SERVICE CORRIDOR - B	EPOXY FLOORING	EPOXY	100	-	ACRYLIC EMULSION PAINT	CEMENT PAINT ON TRUE CEILING	-
	TOILETS (GENTS, LADIES AND DA)	ANTI-SKID VITRIFIED TILE FLOORING	CERAMIC TILE WALL DADO + EPOXY	2400	CEMENT PLASTER	-	CEMENT PAINT ON TRUE CEILING + MOISTURE RATED GYPSUM BOARD CEILING +ACRYLIC EMULSION PAINT + EPOXY	3200
	JANITOR	ANTI-SKID VITRIFIED TILE FLOORING	VITRIFIED TILE WALL DADO	100	POP PUNNING	ACRYLIC EMULSION PAINT	CEMENT PAINT ON TRUE CEILING + MOISTURE RATED GYPSUM BOARD CEILING +ACRYLIC EMULSION PAINT	3200
	STAGING/ STORE ROOM, PRE-ACTION ROOM, INERT GAS CYLINDER ROOM	EPOXY FLOORING	EPOXY	100	POP PUNNING	PU PAINT	CEMENT PAINT ON TRUE CEILING	-
	ELECTRICAL ROOM - 01 & 02, MMR ROOM - A & B, ELV ROOM - A & B	ANTI-STATIC EPOXY FLOORING	EPOXY	100	POP PUNNING	PU PAINT	CEMENT PAINT ON TRUE CEILING	-
	MMR BATTERY ROOM - 01 & MMR BATTERY ROOM - 02	ACID-RESISTANT EPOXY FLOORING	ACID-RESISTANT EPOXY	100	POP PUNNING	PU PAINT	CEMENT PAINT ON TRUE CEILING	-
	LOADING / UNLOADING BAY	CONCRETE FLOOR WITH FLOOR HARDENER	-	-	POP PUNNING	ACRYLIC EMULSION PAINT	CEMENT PAINT ON TRUE CEILING	-
	SECURITY ROOM	CONCRETE FLOOR WITH FLOOR HARDENER	-	-	POP PUNNING	PU PAINT	CEMENT PAINT ON TRUE CEILING + SUSPENDED GRID CEILING	3200
FIRST FLOOR	PASSENGER LIFT LOBBY (FIRE TOWER)	MARBLE FLOORING	POLISHED MARBLE	100	POP PUNNING	ACRYLIC EMULSION PAINT	CEMENT PAINT ON TRUE CEILING + SUSPENDED GRID CEILING	3600
	STAIRCASE - 01	POLISHED GRANITE FLOORING	POLISHED GRANITE	100	POP PUNNING	ACRYLIC EMULSION PAINT	CEMENT PAINT ON TRUE CEILING	-
	STAIRCASE - 02 & STAIRCASE - 03	20MM THK POLISHED KOTA STONE FLOORING	KOTA STONE	100	POP PUNNING	ACRYLIC EMULSION PAINT	CEMENT PAINT ON TRUE CEILING	-
	FIRE TOWER	20MM THK POLISHED KOTA STONE FLOORING	KOTA STONE	100	POP PUNNING	ACRYLIC EMULSION PAINT	CEMENT PAINT ON TRUE CEILING + SUSPENDED GRID CEILING	3200
	GOODS LIFT LOBBY,	EPOXY + CALCIUM SULFATE TILE FALSE FLOOR	EPOXY + PVC	100	POP PUNNING	ACRYLIC EMULSION PAINT	CEMENT PAINT ON TRUE CEILING	-
	MECHANICAL ROOM, ELECTRICAL ROOM, PRE-ACTION ROOM, SCR - A & B, NETWORK ROOM - A & B, SERVER HALL	EPOXY + CALCIUM SULFATE TILE FALSE FLOOR	EPOXY + PVC	100	POP PUNNING	PU PAINT	CEMENT PAINT ON TRUE CEILING	-
	BATTERY ROOM	ACID-RESISTANT EPOXY + ACID-RESISTANT TILES	ACID-RESISTANT EPOXY + PVC	100	POP PUNNING	PU PAINT	CEMENT PAINT ON TRUE CEILING	-

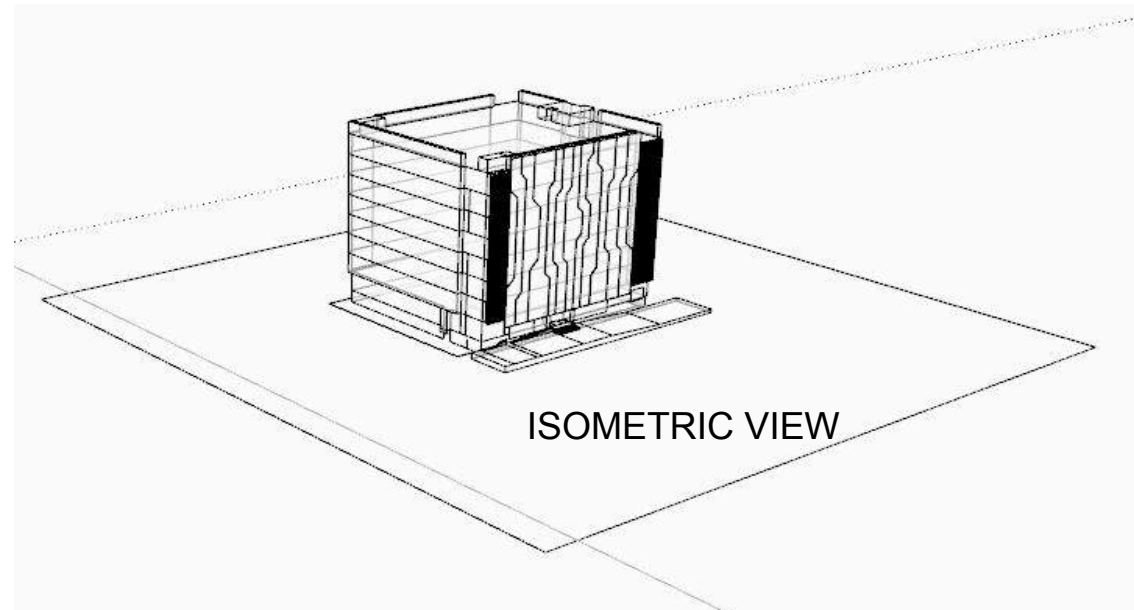
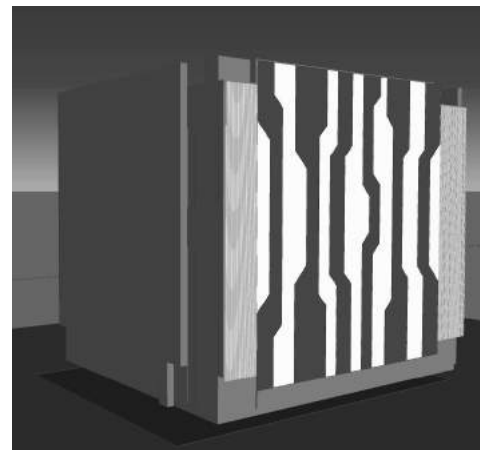
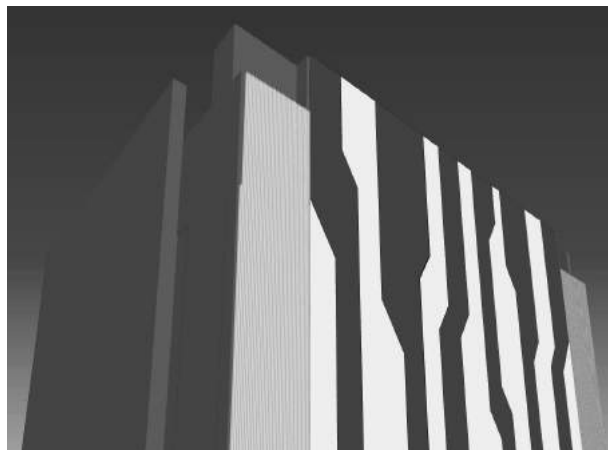
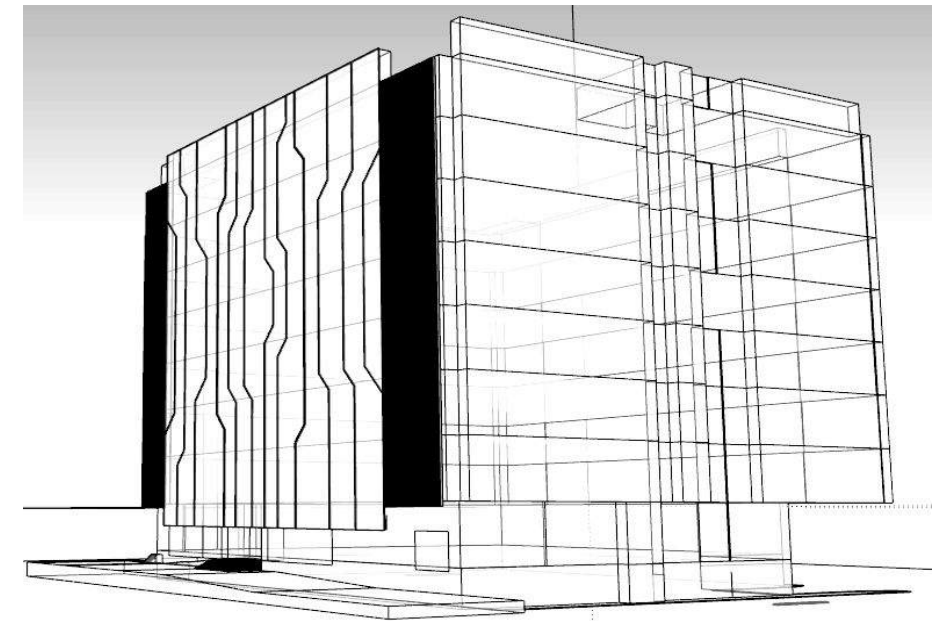
	HVAC PT AND GOODS PT	CONCRETE FLOOR WITH FLOOR HARDENER	-	-	-	-	CEMENT PAINT ON TRUE CEILING	-
	SHAFT (PRESS.)	-	-	-	POP PUNNING	ACRYLIC EMULSION PAINT	-	-
	SHAFT	-	-	-	-	CEMENT PAINT	-	-
	TOILET	ANTI-SKID VITRIFIED TILE FLOORING	VITRIFIED TILE WALL DADO	2400	CEMENT PLASTER	-	CEMENT PAINT ON TRUE CEILING + MOISTURE RATED SUSPENDE CEILING	3200
TYPICAL FLOOR (2ND TO 6TH)	PASSENGER LIFT LOBBY (FIRE TOWER)	MARBLE FLOORING	POLISHED MARBLE	100	POP PUNNING	ACRYLIC EMULSION PAINT	CEMENT PAINT ON TRUE CEILING + SUSPENDE GRID CEILING	3600
	STAIRCASE - 01	POLISHED GRANITE FLOORING	POLISHED GRANITE	100	POP PUNNING	ACRYLIC EMULSION PAINT	CEMENT PAINT ON TRUE CEILING	-
	STAIRCASE - 02 & STAIRCASE - 03	20MM THK POLISHED KOTA STONE FLOORING	KOTA STONE	100	POP PUNNING	ACRYLIC EMULSION PAINT	CEMENT PAINT ON TRUE CEILING	-
	FIRE TOWER	20MM THK POLISHED KOTA STONE FLOORING	KOTA STONE	100	POP PUNNING	ACRYLIC EMULSION PAINT	CEMENT PAINT ON TRUE CEILING + SUSPENDE GRID CEILING	3200
	GOODS LIFT LOBBY	EPOXY	EPOXY	100	POP PUNNING	ACRYLIC EMULSION PAINT	CEMENT PAINT ON TRUE CEILING	-
	HVAC PT AND GOODS PT	CONCRETE FLOOR WITH FLOOR HARDENER	-	-	-	-	CEMENT PAINT ON TRUE CEILING	-
	SHAFT (PRESS.)	-	-	-	POP PUNNING	ACRYLIC EMULSION PAINT	-	-
	REFUGE AREA	KOTA STONE FLOORING	KOTA STONE	100	-	EXTERIOR GRADE TEXTURED PAINT	-	-
SEVENTH FLOOR & TERRACE LEVEL	PASSENGER LIFT LOBBY (FIRE TOWER)	MARBLE FLOORING	POLISHED MARBLE	100	POP PUNNING	ACRYLIC EMULSION PAINT	CEMENT PAINT ON TRUE CEILING + SUSPENDE GRID CEILING	3600
	STAIRCASE - 01	POLISHED GRANITE FLOORING	POLISHED GRANITE	100	POP PUNNING	ACRYLIC EMULSION PAINT	CEMENT PAINT ON TRUE CEILING	-
	STAIRCASE - 02 & STAIRCASE - 03	20MM THK POLISHED KOTA STONE FLOORING	KOTA STONE	100	POP PUNNING	ACRYLIC EMULSION PAINT	CEMENT PAINT ON TRUE CEILING	-
	FIRE TOWER	20MM THK POLISHED KOTA STONE FLOORING	KOTA STONE	100	POP PUNNING	ACRYLIC EMULSION PAINT	CEMENT PAINT ON TRUE CEILING + SUSPENDE GRID CEILING	3200
	CUSTOMER OFFICE	CARPET TILE FLOORING	ALUMINIUM SKIRTING	100	POP PUNNING	ACRYLIC EMULSION PAINT, SOFTBOARDS DIGITAL PRINT AND TEXTURED PAINT	CEMENT PAINT ON TRUE CEILING + SUSPENDE GRID CEILING	3200
	TOILETS (GENTS, LADIES AND DA)	ANTI-SKID VITRIFIED TILE FLOORING	VITRIFIED TILE WALL DADO	2400	CEMENT PLASTER	-	CEMENT PAINT ON TRUE CEILING	-
	CORRIDOR - 2.4M WIDE AND 1.2M WIDE	EPOXY FLOORING	EPOXY	100	POP PUNNING	ACRYLIC EMULSION PAINT	CEMENT PAINT ON TRUE CEILING	-
	ELECTRICAL ROOM - A1, B1 C1, D1 SCR - A & B, PRE-ACTION ROOM	ANTI-STATIC EPOXY FLOORING	EPOXY	100	POP PUNNING	ACRYLIC EMULSION PAINT	CEMENT PAINT ON TRUE CEILING	-
	BATTERY ROOM - A1 & BATTERY ROOM - B1	ACID-RESISTANT EPOXY FLOORING	ACID-RESISTANT EPOXY	100	POP PUNNING	ACRYLIC EMULSION PAINT	CEMENT PAINT ON TRUE CEILING	-
	GOODS LIFT LOBBY	EPOXY	EPOXY	100	POP PUNNING	ACRYLIC EMULSION PAINT	CEMENT PAINT ON TRUE CEILING	-
	HVAC PT AND GOODS PT	CONCRETE FLOOR WITH FLOOR HARDENER	-	-	-	-	CEMENT PAINT ON TRUE CEILING	-
	SHAFT (PRESS.)	-	-	-	POP PUNNING	ACRYLIC EMULSION PAINT	-	-
	REFUGE AREA	KOTA STONE FLOORING	KOTA STONE	100	-	EXTERIOR GRADE TEXTURED PAINT	-	-



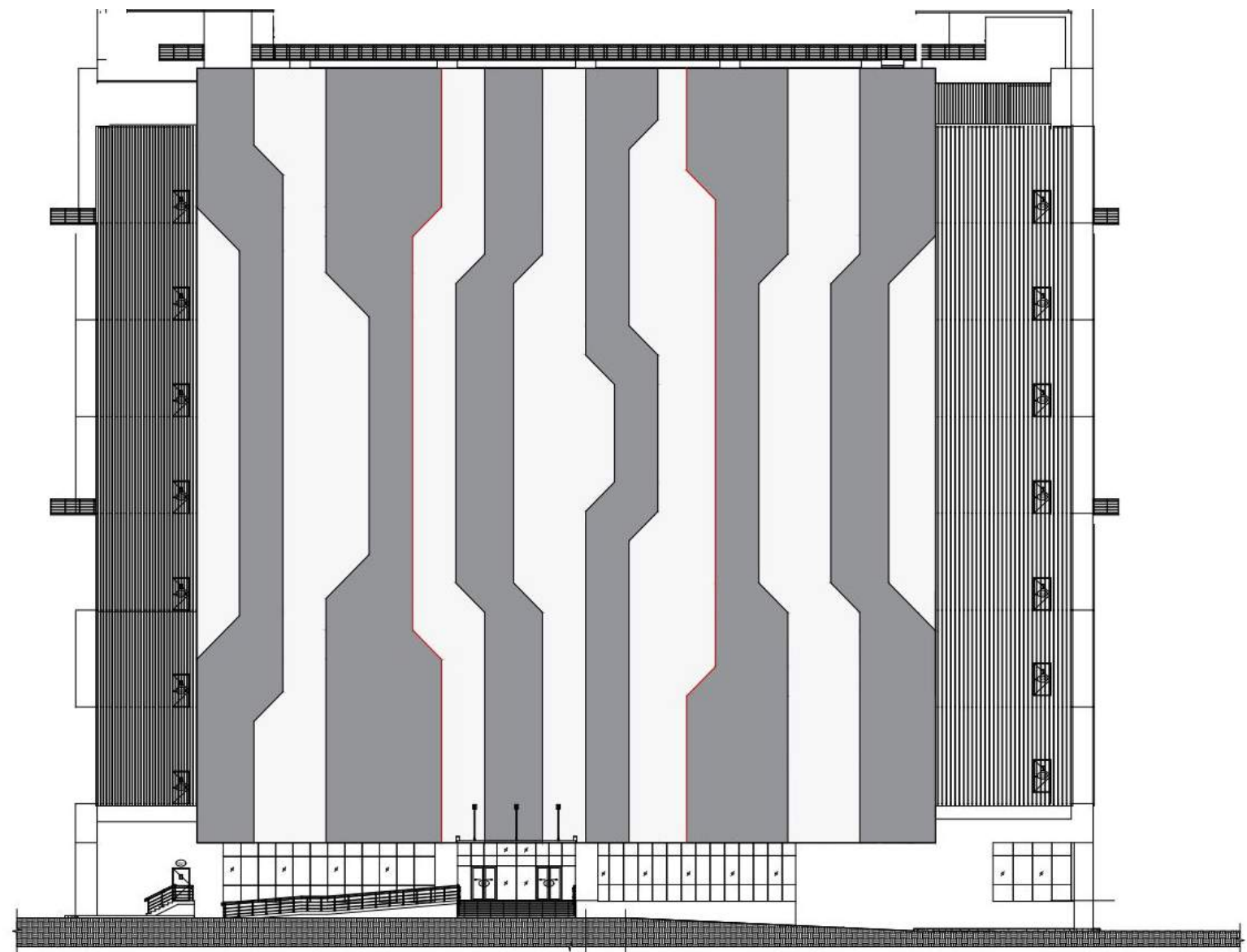
THREE DIMENSIONAL MODEL



PLAN



ISOMETRIC VIEW



ELEVATION



5. ST TELEMEDIA DATA CENTER - NAVI MUMBAI ANNEX BUILDING

This datacenter is proposed in navi mumbai , for which the conceptual design is made by Jacobs and the project was handed over to L&T construction by ST Telemedia team.

Current scope of works handled : After the approval of DC interiors we had stepped into the annex building even though it is in small scale than the DC building , the schemes and procedures were same as the DC building. Interior schemes for every spaces were made with different concepts and exploring different new materials which is effective in its purpose were utilized , meanwhile since the floor plans were yet to be approved , I was assigned the floor plan designing part, different iterations were made and shown to higher authority , after approval the floor layouts were submitted to client , and further revisions were made according to there comments from clients , for every plan corrections renders were being updated and submitted. Further based on the new plans , the new quantities were taken to confirm with the difference between tender quantity and current quantity. Simultaneously the playbook specifications were compared with our finishing schedule options and the comparison chart were made and submitted to client team and further corrections in renders and floor plans were processing in current period.



(A) Carpet flooring
Radiant Interaction
Mohawk

(B) Laminate
Glossy white
Merino

(C) Acrylic emulsion paint
Ral 9016

(D) Lacquered glass
Extra white, Cocoon
Saint gobain

(E) Metal baffle ceiling
Ral 9016



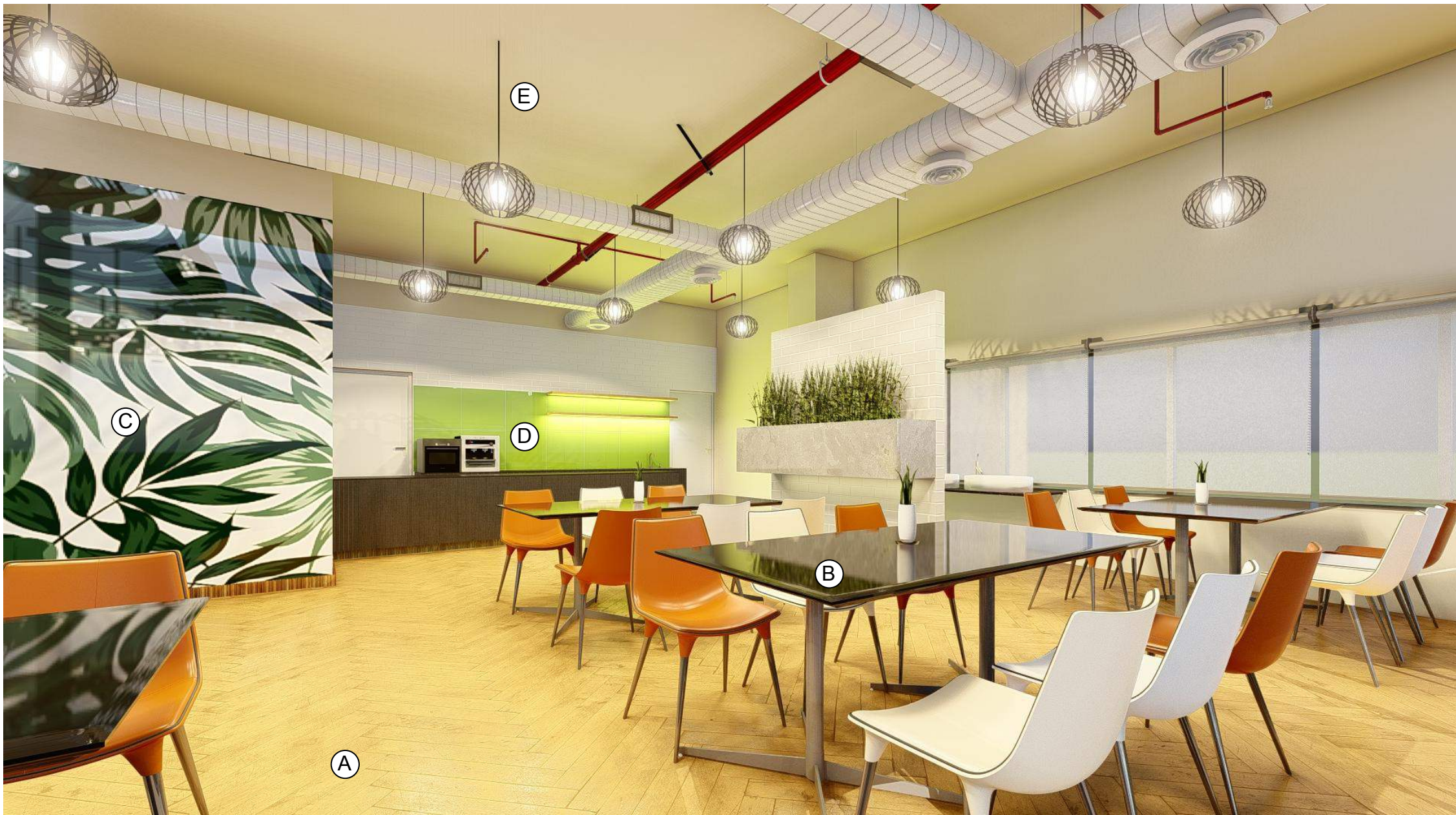
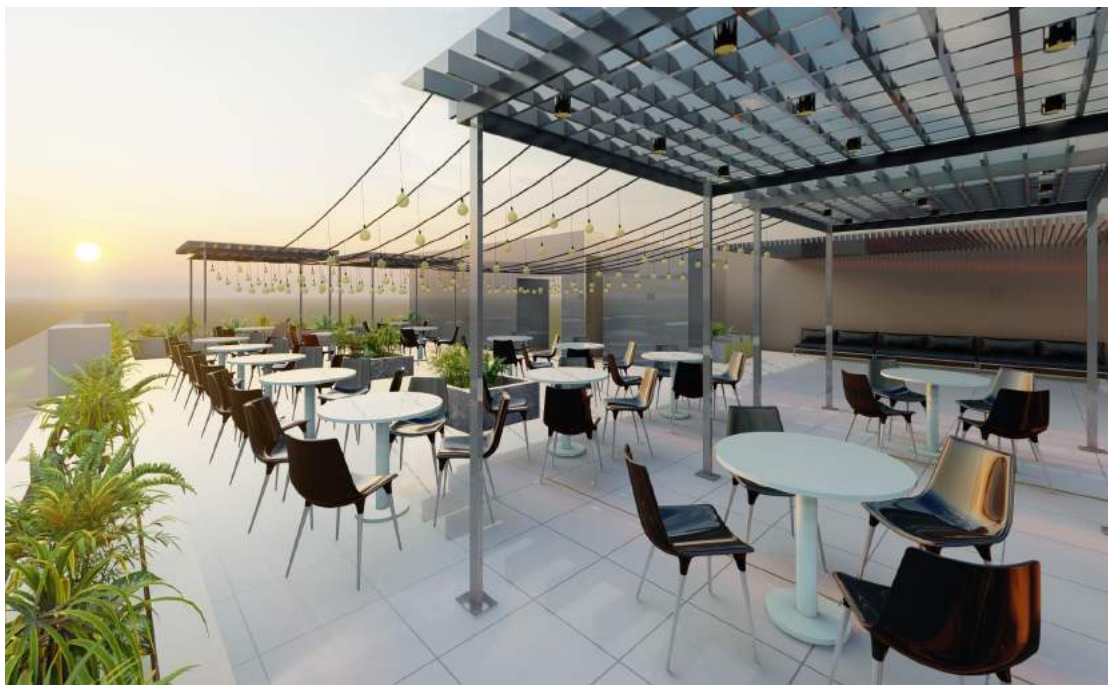
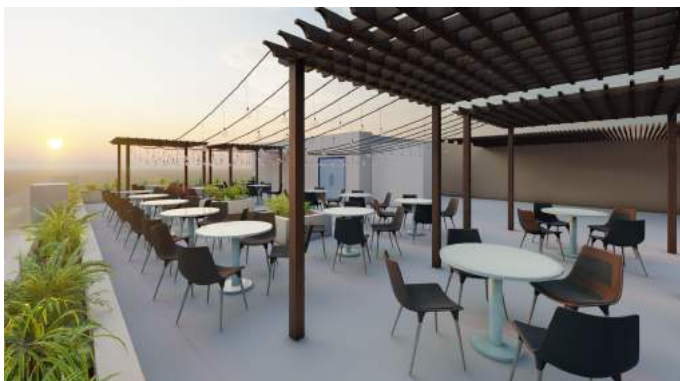
(A) Granite flooring
Grey rivera

(B) Acrylic Emulsion Paint
Ice grey
Berger

(C) Wall Graphics

(D) Lacquered Glass
Black - Urban
Saint Gobain

(E) Mineral Fibre Ceiling
New Sandila - NRC - 0.75
OWA



(A) Vinyl flooring
Vila rica - Alvao
(Carpetis inter)

(B) Laminate
Glossy Black
Merino

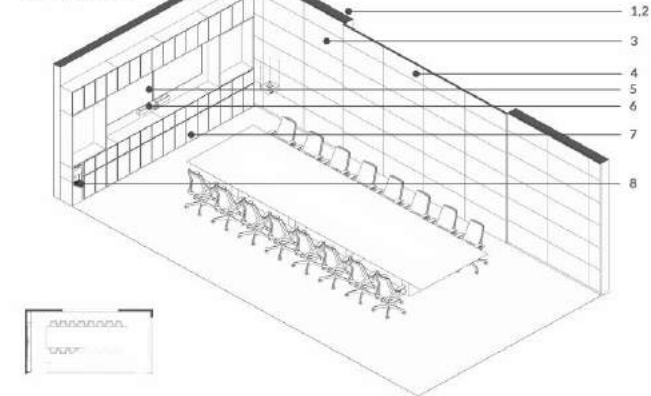
(C) Wall Graphics

(D) Lacquered glass
Pista green - Pop
Saint Gobain

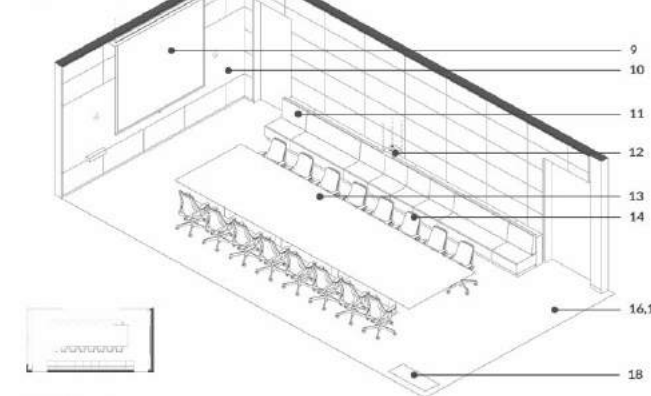
(E) Acrylic Emulsion Paint
Ral 9016

Board Room

Primary colours:



Primary colours:



Proposed view

1. Ceiling: M15
2. Lighting: L01, L03 and L04 all dimmable and scene selectable
3. Wall: Slab to slab walls, finishes in M13a and M14 (1 wall)
4. Viewing gallery window concealed by movable panels if applicable
5. AV requirement: 2 nos. E52b with cabling to table box (HDMI and USB) with keypad control & Passive Infrared sensor (PIR)
6. 1 no. E57
7. Cabinetry: Finish in M21b
8. 1 no. E01
9. AV requirement: 1 no. E54
10. Whiteboard: M20 in white
11. Fixed bench seating in fabric finish, if space permits
12. AV requirement: 1 no. E55
13. Table: Finish in M21a
14. Chairs: C01
15. Per-seat side-mounted GPOs on table with under-mounted USB ports
16. Floor: M03
17. Skirting: M09b
18. Space provision for air purifier (subjected to local practice requirements)

Open Plan Office / General Office

Primary colours:



Primary colours:



Proposed view

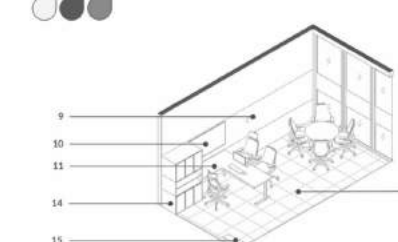
1. Ceiling: M15
2. Lighting: L05 as required
3. Storage Unit: Full height w/ pull-out shelves finished in M21b
4. Wall: Slab to slab walls, finish in M13a
5. Door: Single leaf heat soaked tempered glass door with stainless steel (316) push and pull handle and concealed floor springs with STC 45 acoustic properties to prevent sound transmission, minimum clear opening of 2700 x 820 (subject to local code requirement)
6. Floor: M03
7. Skirting: M13c
8. To be located near windows or other natural lighting
9. 1 no. E56 with workbench, recessed from the corridor away from desks area
10. Chairs: C01
11. Tables: D02, cable management as required
12. Customised meeting table
13. P17b as required
14. D07 as required

Head of Department Office (Corporate Office)

Primary colours:



Primary colours:



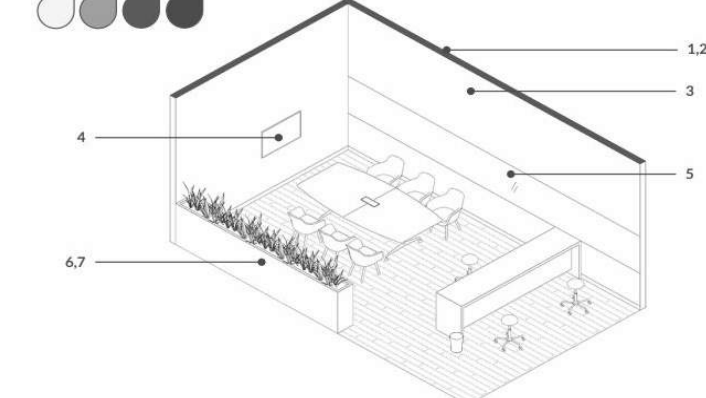
Proposed view

1. Ceiling: M15
2. Lighting: L05
3. Wall: Slab to slab walls, finish in M14
4. Full height door in M20 with frosted privacy film strip
5. Table: D04 as required
6. Chair: C01 as required
7. Monitor arms
8. Chair: 2 nos. C02
9. Whiteboard: M20
10. AV requirement: 1 no. E52b
11. Meeting table: D06
12. Floor: M03
13. Skirting: M09b
14. Cabinetry: With shelves to store documents and filing cabinets. Finish in M21a
15. Space provision for air purifier

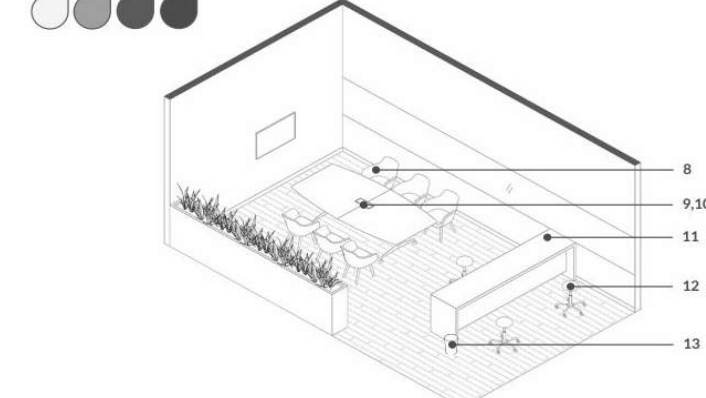
Premium feel of the room is expected.

Collaboration Area (Corporate Office)

Primary colours:



Primary colours:

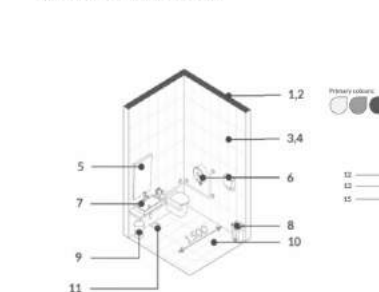


Proposed view

1. Ceiling: M15
2. Lighting: L05 + feature pendants to local interior designer's proposal
3. Wall: Finished in M13a
4. AV requirement: E52a as required
5. Whiteboard: M20
6. Floor: M03
7. Skirting: M09b
8. Chair: C06
9. Meeting desk: D05
10. Cable management (including HDMI cable and double power point) as required
11. Meeting desk: Plywood finish in M21a
12. Chair: C03
13. P17b as required

To be located near windows or other natural lighting.

Barrier-Free Toilets



1. Ceiling: M17
2. Lighting: L01 as required
3. Wall: Slab to slab walls, finish in M05c
4. Waterproofing: Toilet walls to have waterproofing up to a height of 300mm from finished floor level.
5. Angled Mirror
6. Sanitary fixture: P11, P14 and emergency call button
7. Sanitary fixture: P02, P06 and P07
8. Sanitary fixture: P16
9. Sanitary fixture: P17a
10. Floor: M05a
11. Sanitary fixture: P15a

Primary colours:

12. Grab bars: P13a, P13b
13. Sanitary fixture: P01b
14. Clearance in front of wash closet
15. Grab bars: P13c
16. Door: Automatic aluminium sliding door or single-leaf aluminium swing door with minimum clear opening of 2400 x 850 (subject to local code requirement)
17. Sanitary fixture: P12 located behind door

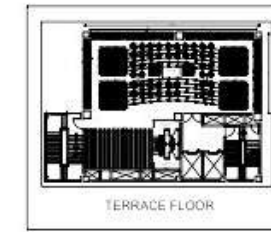
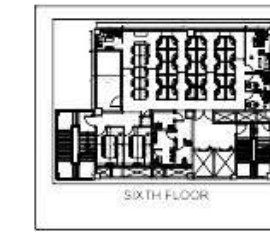
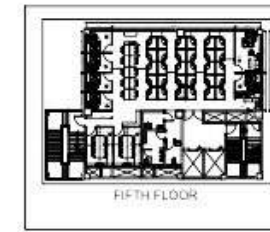
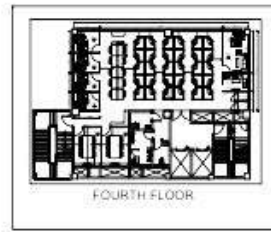
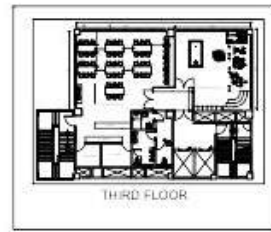
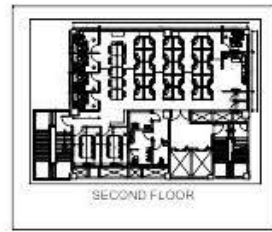
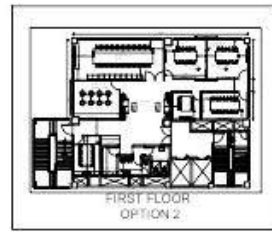
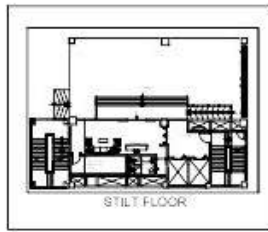
Recommended dimensions indicated - subject to local codes requirement



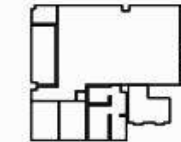
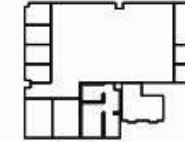
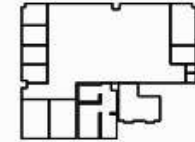
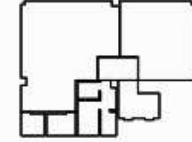
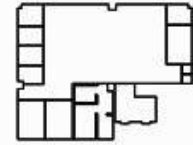
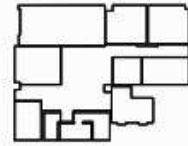
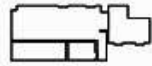
Proposed view

Preferred specifications from client side for every spaces would be provided which could be considered based on chief architect's guidance - one such example is provided below

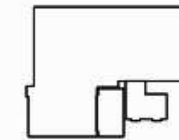
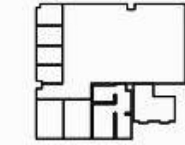
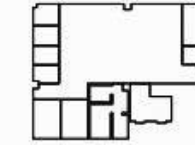
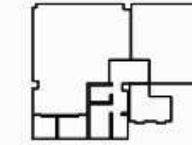
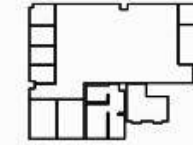
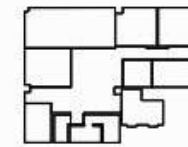
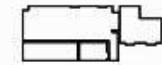
S NO	Board Room SPECIFICATION	STATUS	REMARKS
1	M03  Dark grey carpet tile finish	PROVIDED	PROVIDED WITH RED STRIPES
2	L01  L03 	PROVIDED	
3	M15  Material Standard T-bar grid ceiling with acoustic mineral fibre tiles	PROVIDED	
4	C01  Specification Back: Soft black open mesh Seat: Soft black open mesh Bases: 5-star swivel black casters	PROVIDED	
5	M09b  Stainless steel	NOT PROVIDED	PROVIDED - ALUMINIUM SKIRTING
6	M13a  Skim coat with anti-dust paint and washable M14  Acoustic fabric panel	PROVIDED	
7	E52b  Type: Display screen Diagonal size: 75" Frame: Black	PROVIDED	PROVIDED ONLY 1 NO. - SPACE CONSTRAINT
8	E57  Specification Type: Video bar	PROVIDED	
9	E01  Specification Type: Water dispenser Finish: Stainless steel L04  Type: LED strip cove lighting	NOT PROVIDED	NOT APPLICABLE
10	M21b  Laminate in white M21a  Laminate in light wood tone	PROVIDED	
11	E54  Type: Projector screen Dimensions: 7500x1500mm Finish: Matte white-PVC	PROVIDED	
12	M20  Glass WHITEBOARD	NOT PROVIDED	PROVIDED GLOSSY WHITE LAMINATE



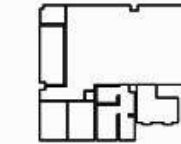
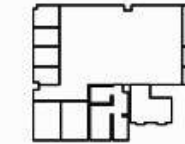
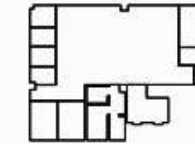
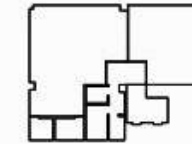
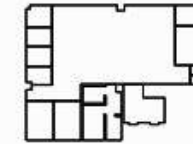
FOR FLOORING



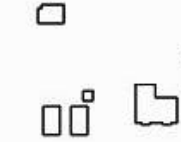
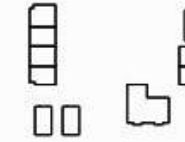
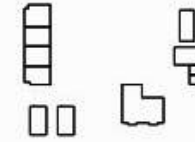
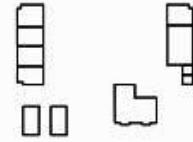
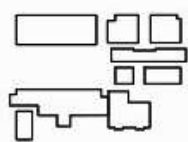
FOR AC



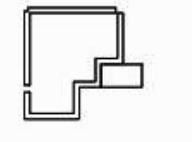
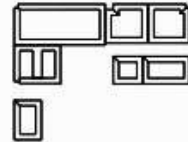
FOR CEILING



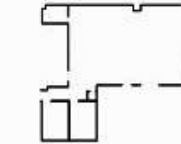
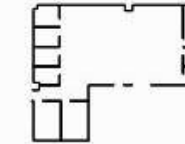
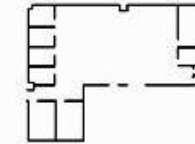
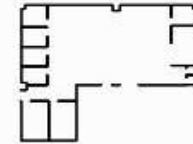
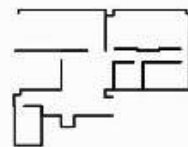
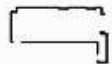
FOR GRID CEILING



FOR GYPSUM CEILING



ALUMINIUM SKIRTING



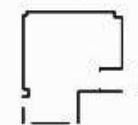
VITRIFIED TILE DADO



FOR CAFE VITRIFIED TILES



VITRIFIED TILE SKIRTING



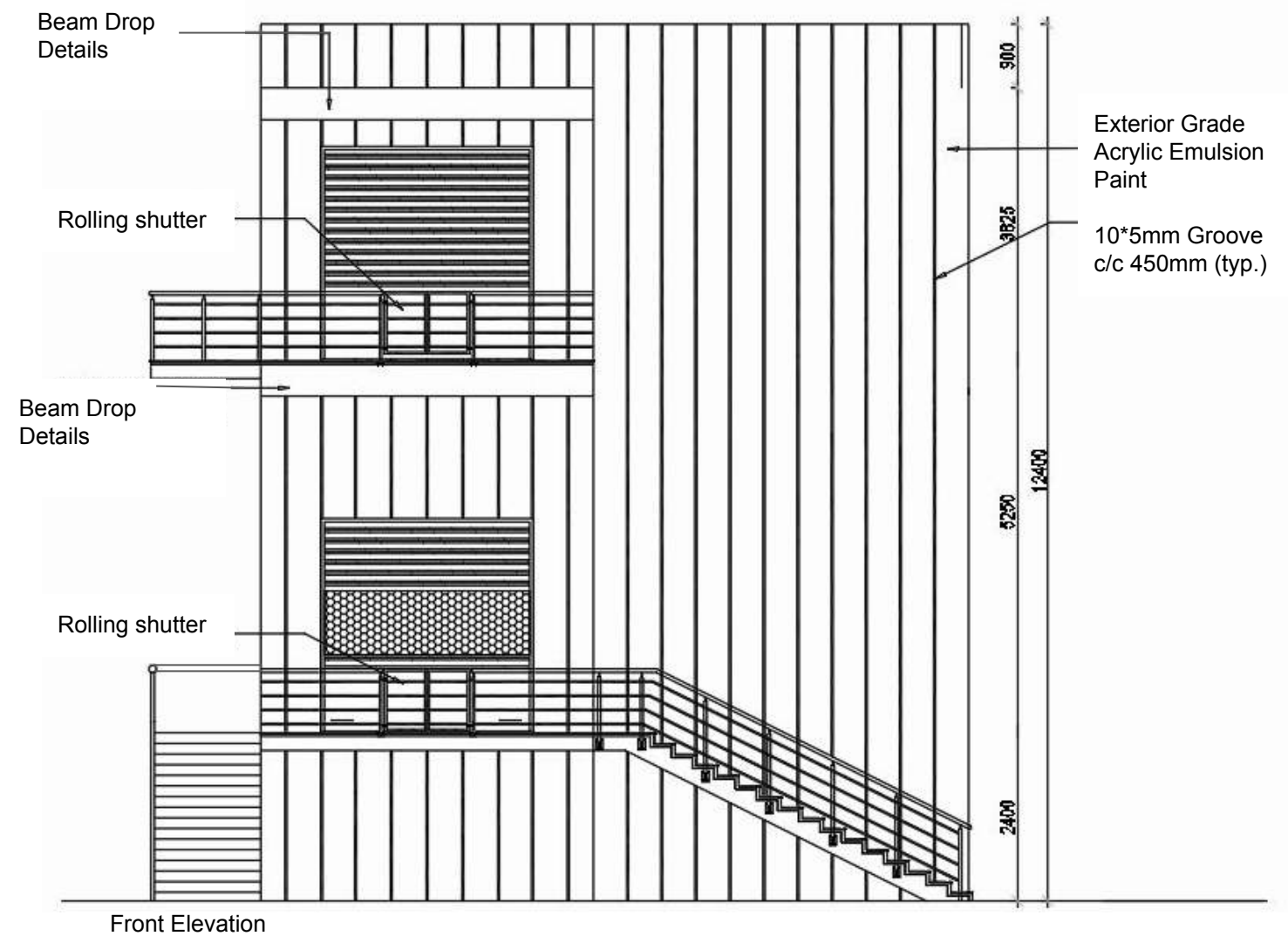
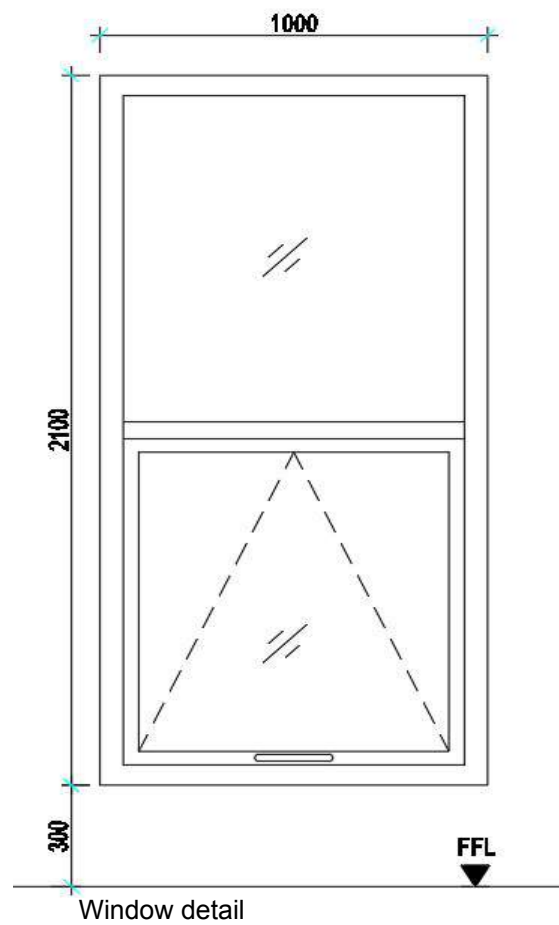
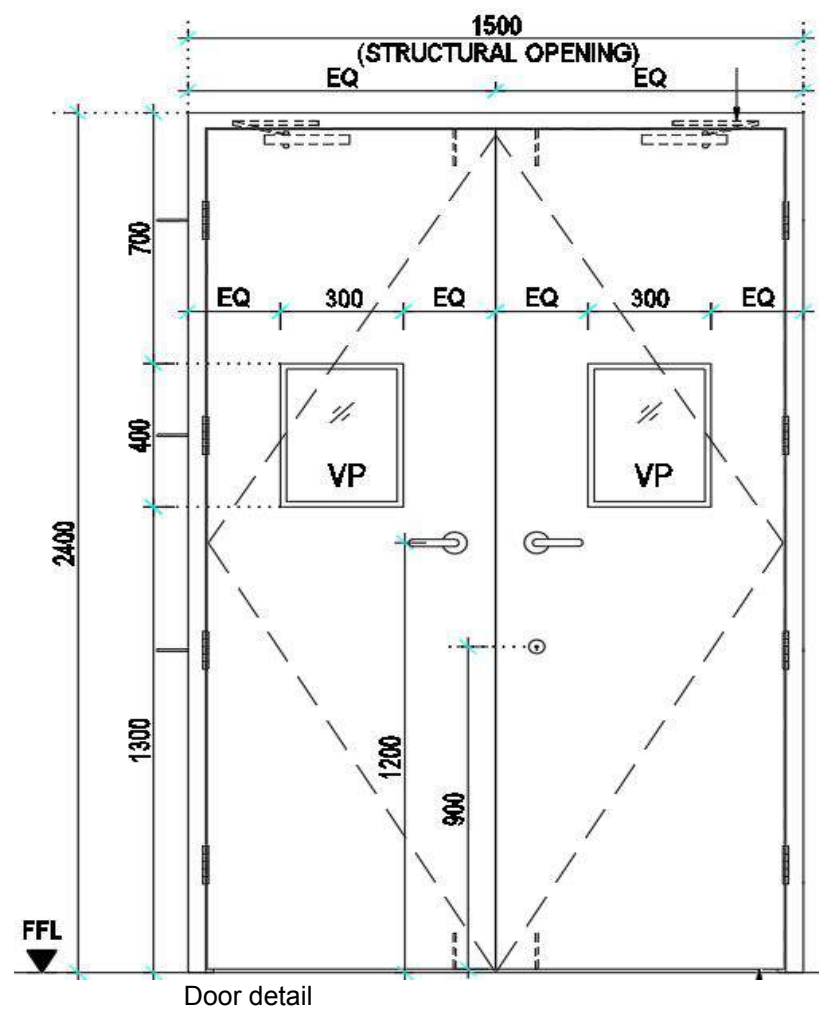
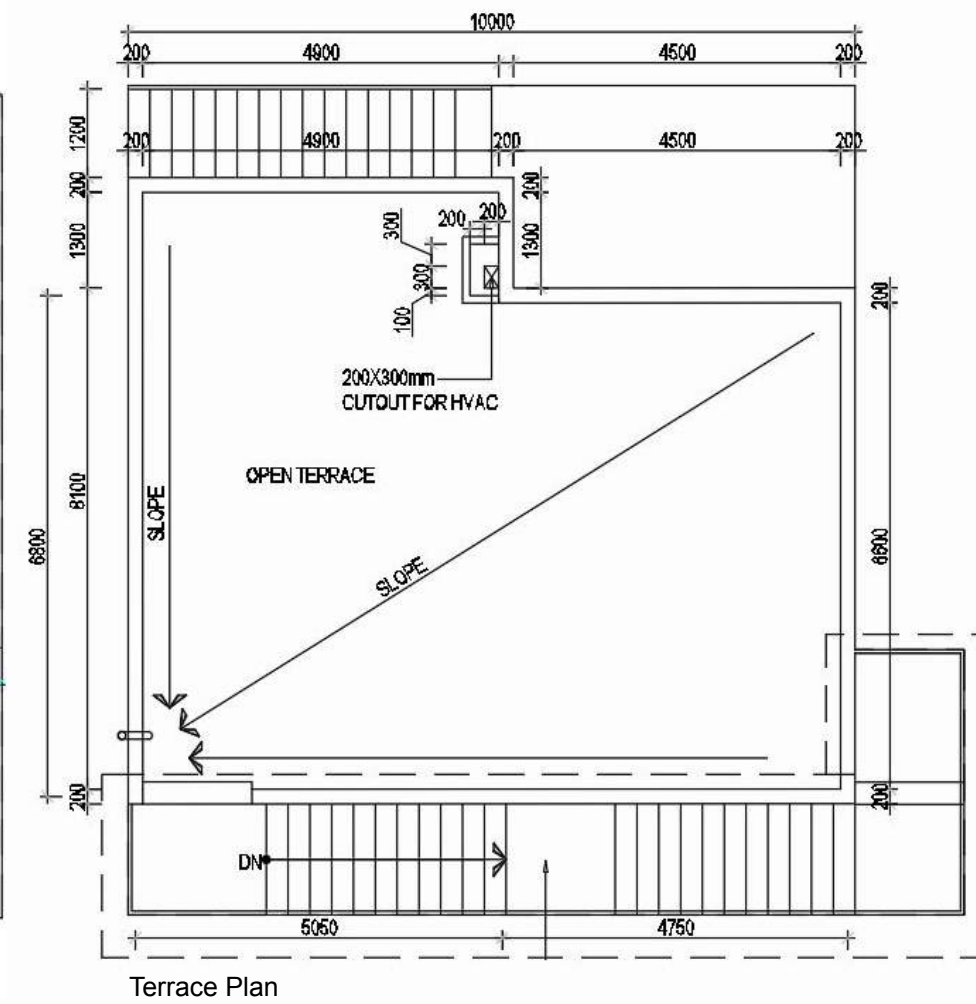
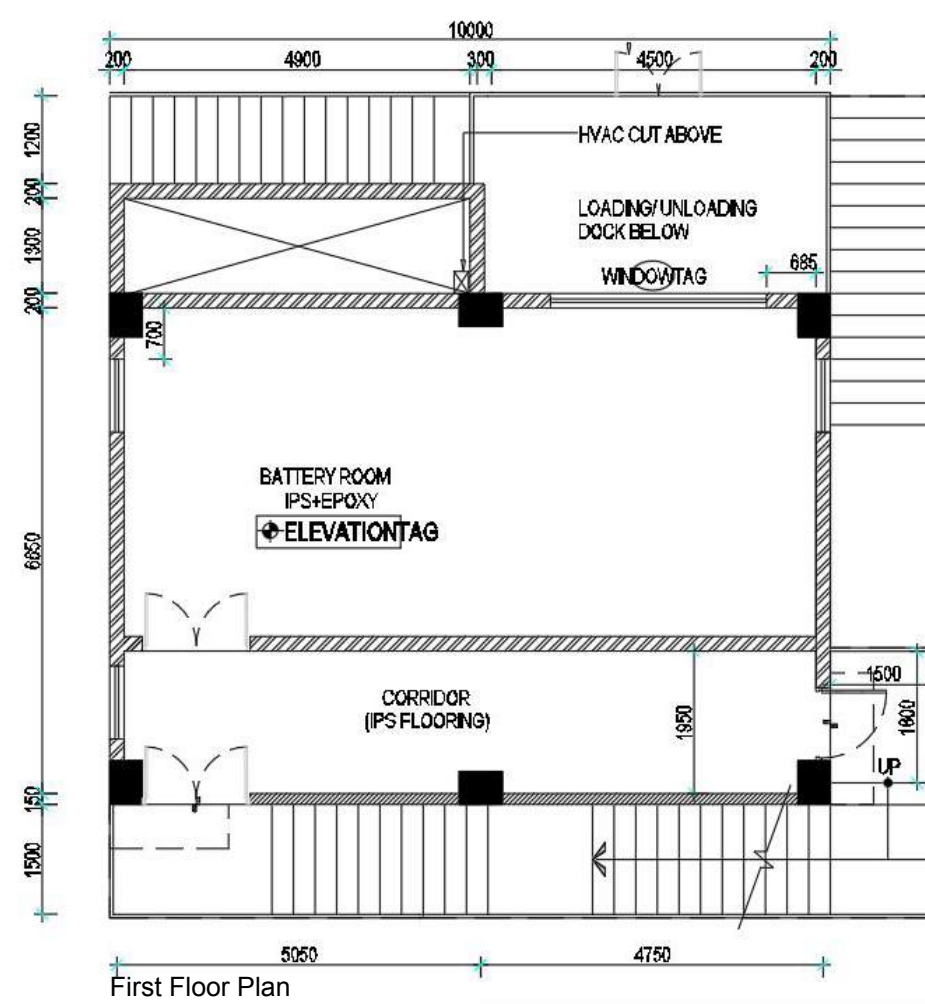
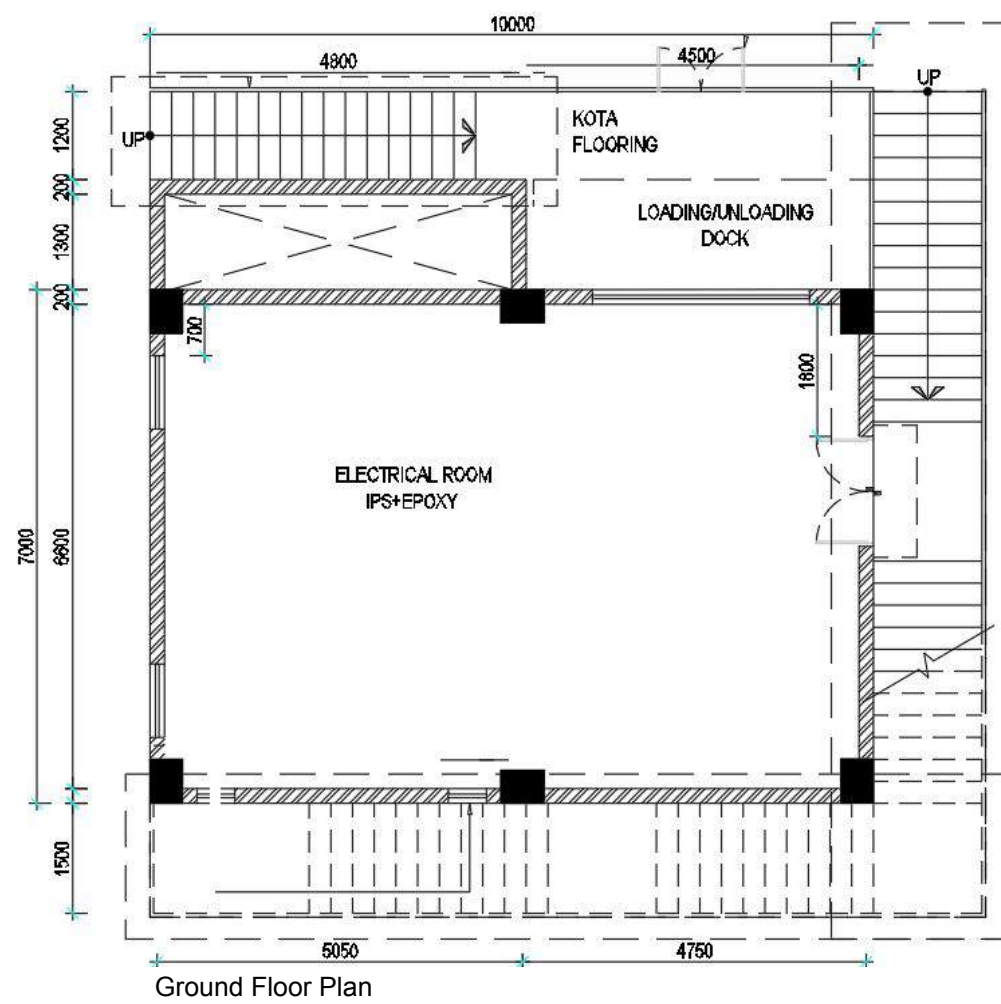
GRANITE SKIRTING



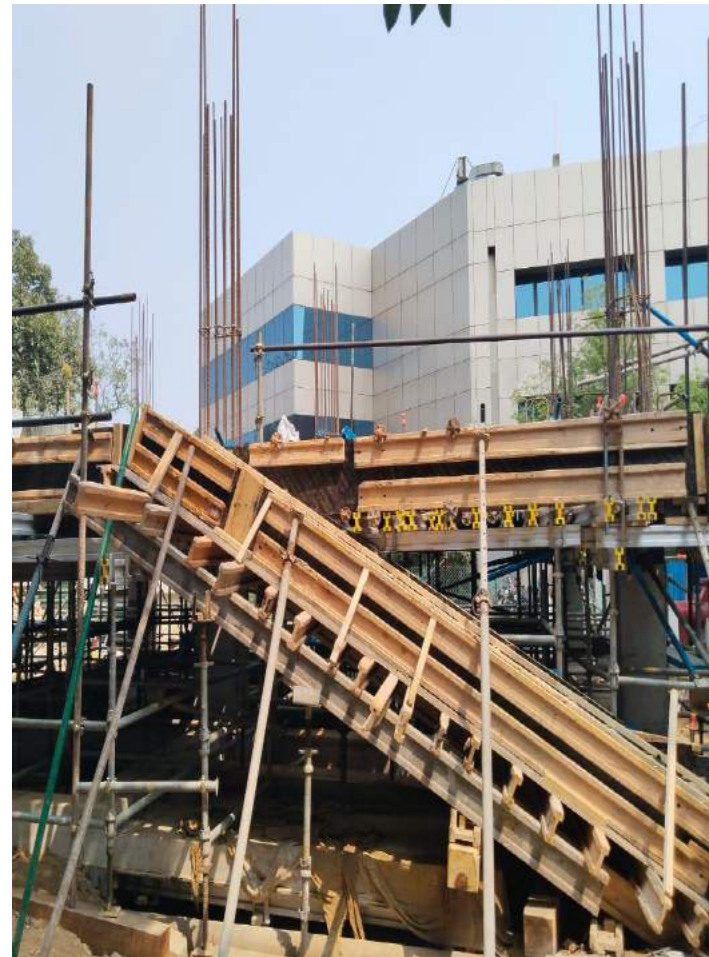
6. EB BUILDING EXTERIORS - TC4

A majestic technology center is being constructed in the L&T headquarters campus, Chennai which is TC4 currently in the stage of excavation at site and design finalizations in the office. The interiors were outsourced by our team. We have worked on the landscape and elevations of the ancillary buildings.

Current scope of works handled : Currently the finishing works in the drawings, and detailing part is benign done, also further updation in the interior layout is also being suggested and studies were being employed to enhance the proposed floor plan layouts, the sample collection stage of the interior schemes developed is also being started and presented to the higher authority.



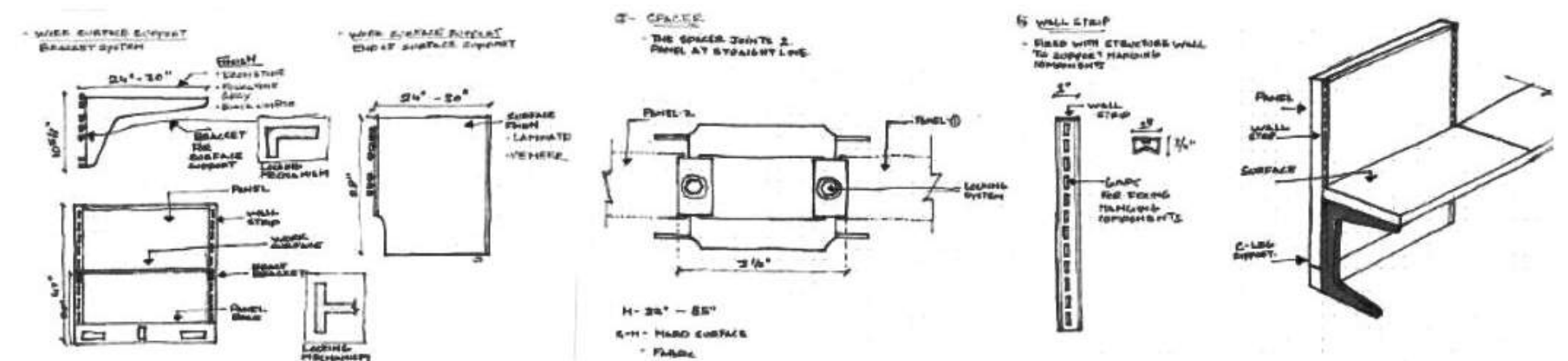
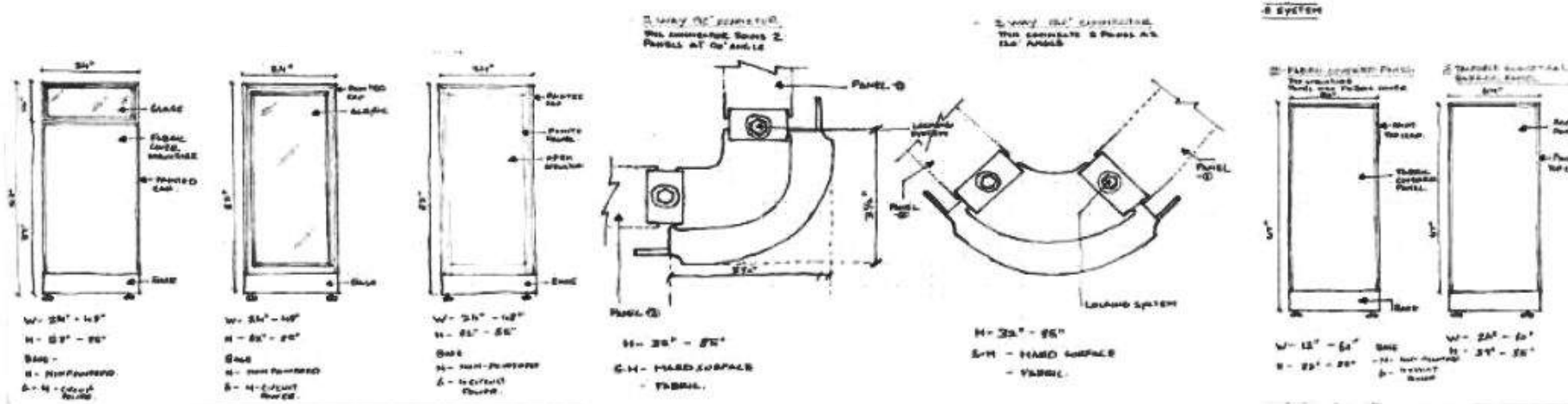




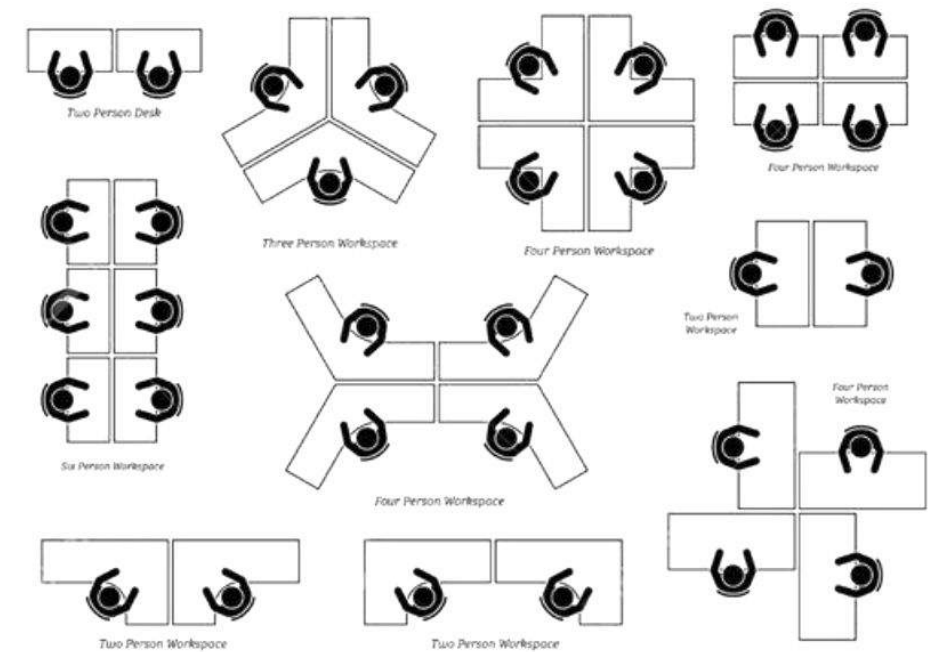
7. ENGINEERING DEVELOPMENT AND RESEARCH CENTER - L&T CHENNAI

L&T Construction's Engineering Development and Research Centres, certified for ISO: 9001 – 2008 for their operations, are located at Chennai and Kolkata. From these hubs, multi-disciplinary teams of engineers work on sophisticated software and hardware offering value-added integrated engineering services to clients across projects, with basic & detailed design and engineering support as part of the comprehensive EPC services as well as on a stand-alone basis.

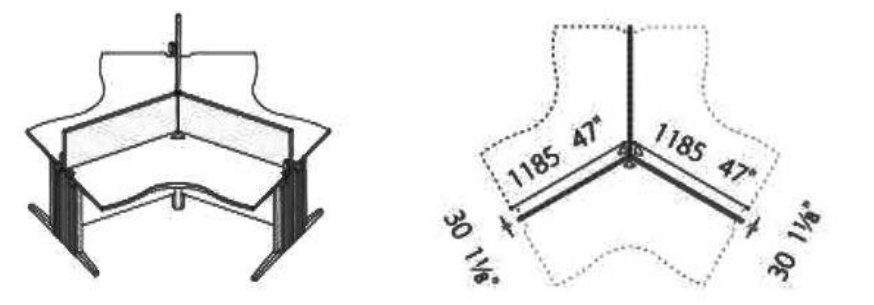
Current scope of works handled : Internal floor layout renovation for additional seating capacity, Revision of quantity after every iteration and visualising the options in 3d interior renders that makes way to provide different conceptual interior designs.



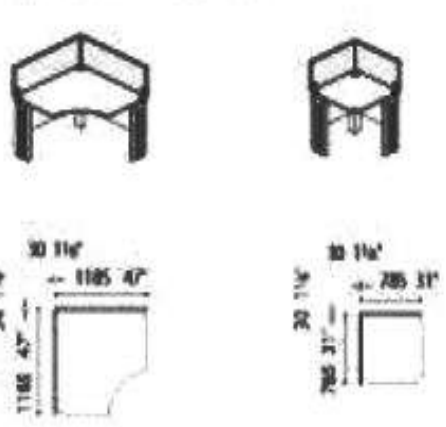
Workspace Desk Arrangement



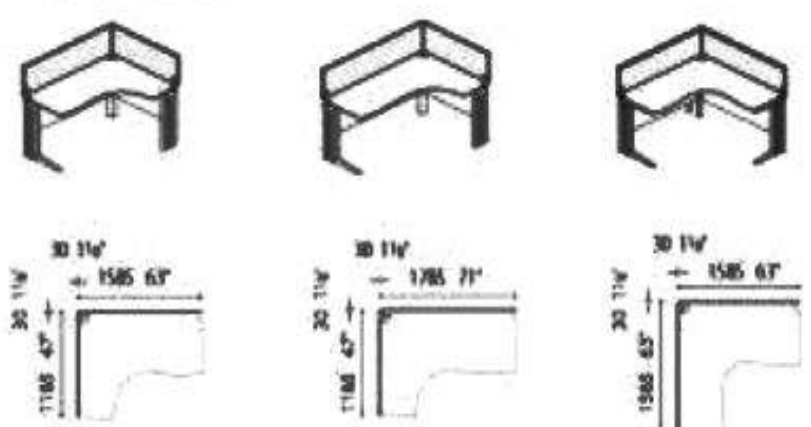
For 120° desk



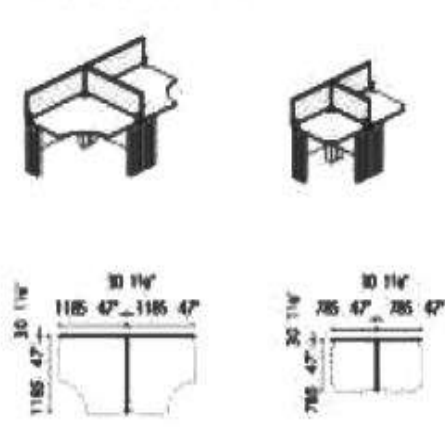
For connector unit



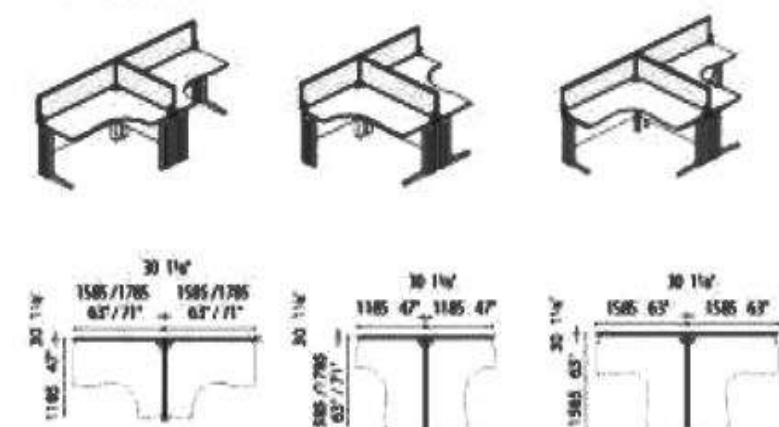
For L-type desk



For connector unit



For L-type desk



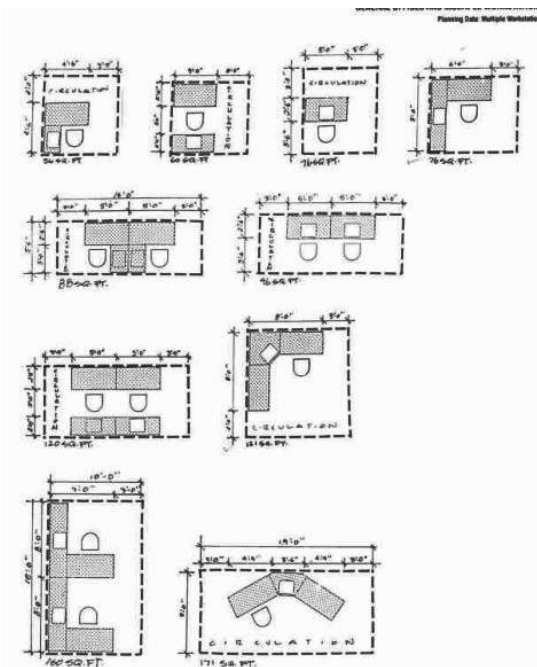
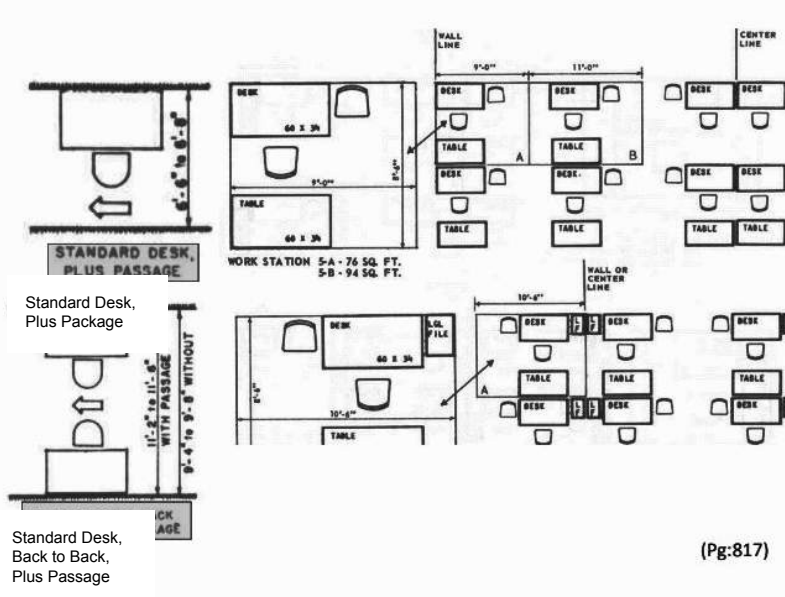
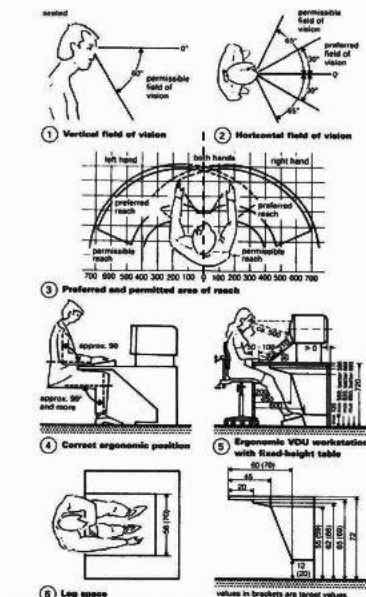
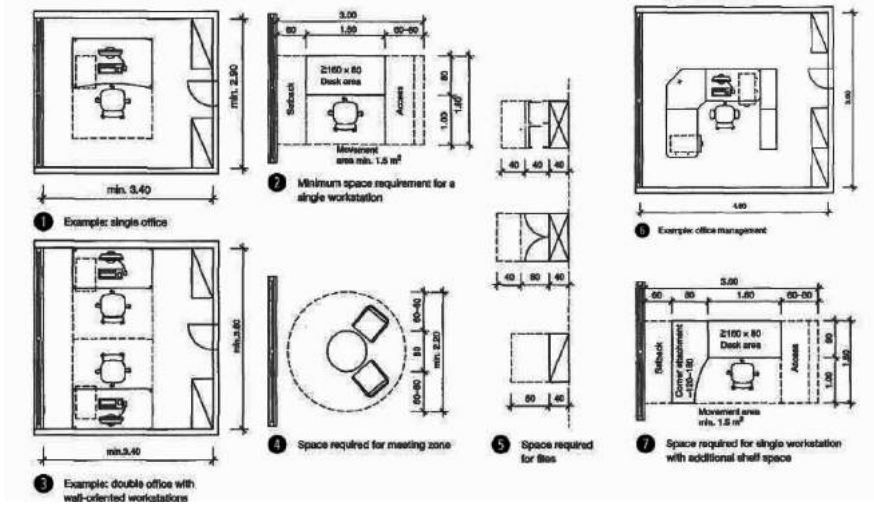
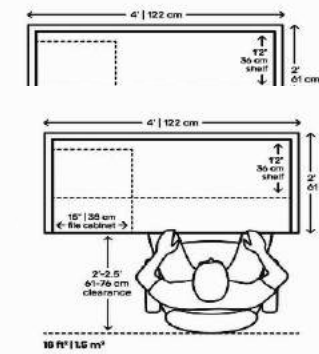
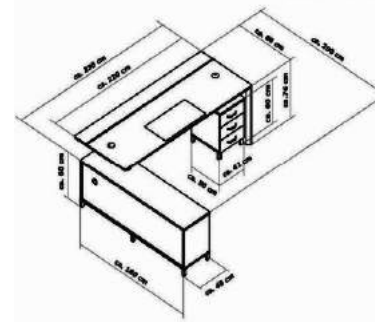
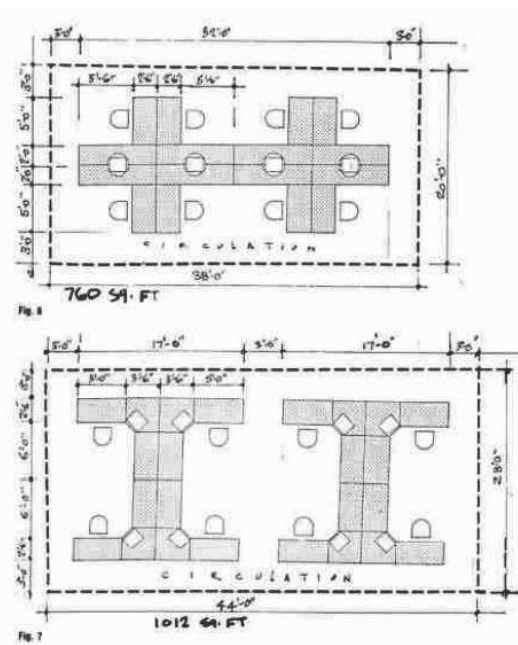
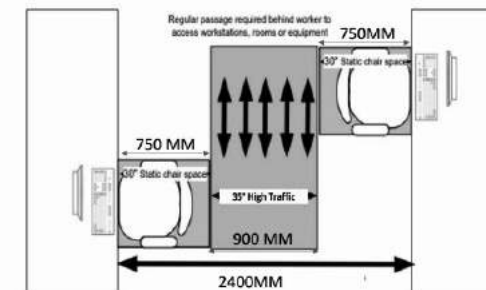


Fig. 3 Depending upon function, the sizes of individual and multiple workstations vary considerably. Size of workstation, length and depth of return, chair size, and circulation patterns all influence the gross square footage requirements.

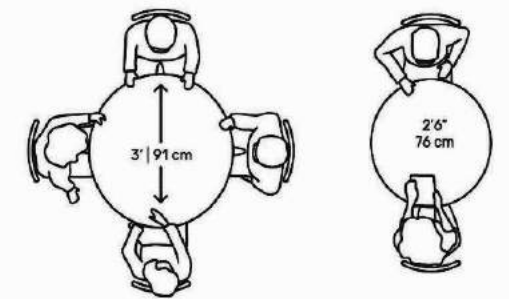


(Pg:817)

AISLE WIDTH STANDARDS

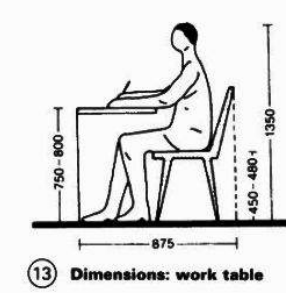
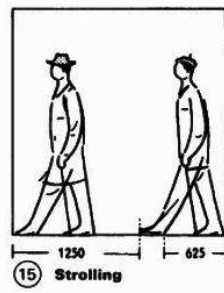
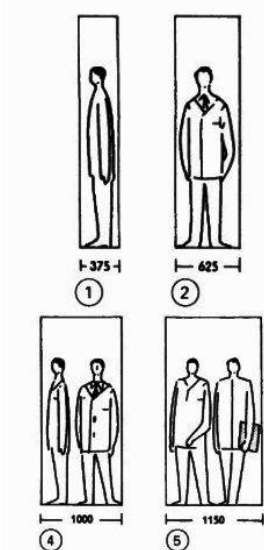


MEETING TABLE STANDARDS

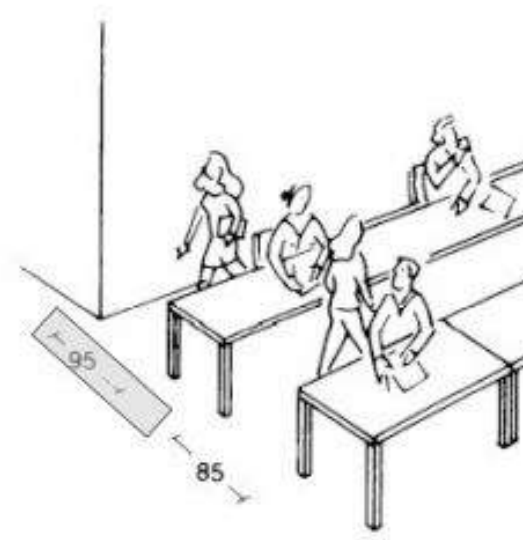


FOR 4 PEOPLE

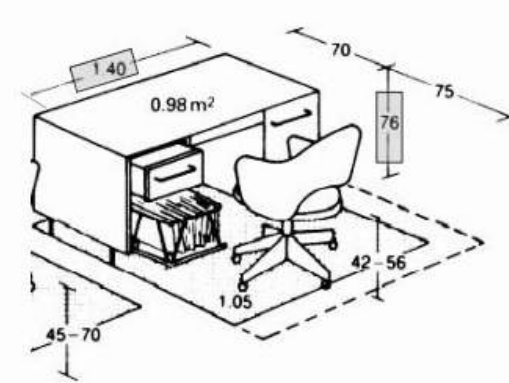
FOR 2 PEOPLE



NEUFERT ANTHROPOMETRY (Pg:42)

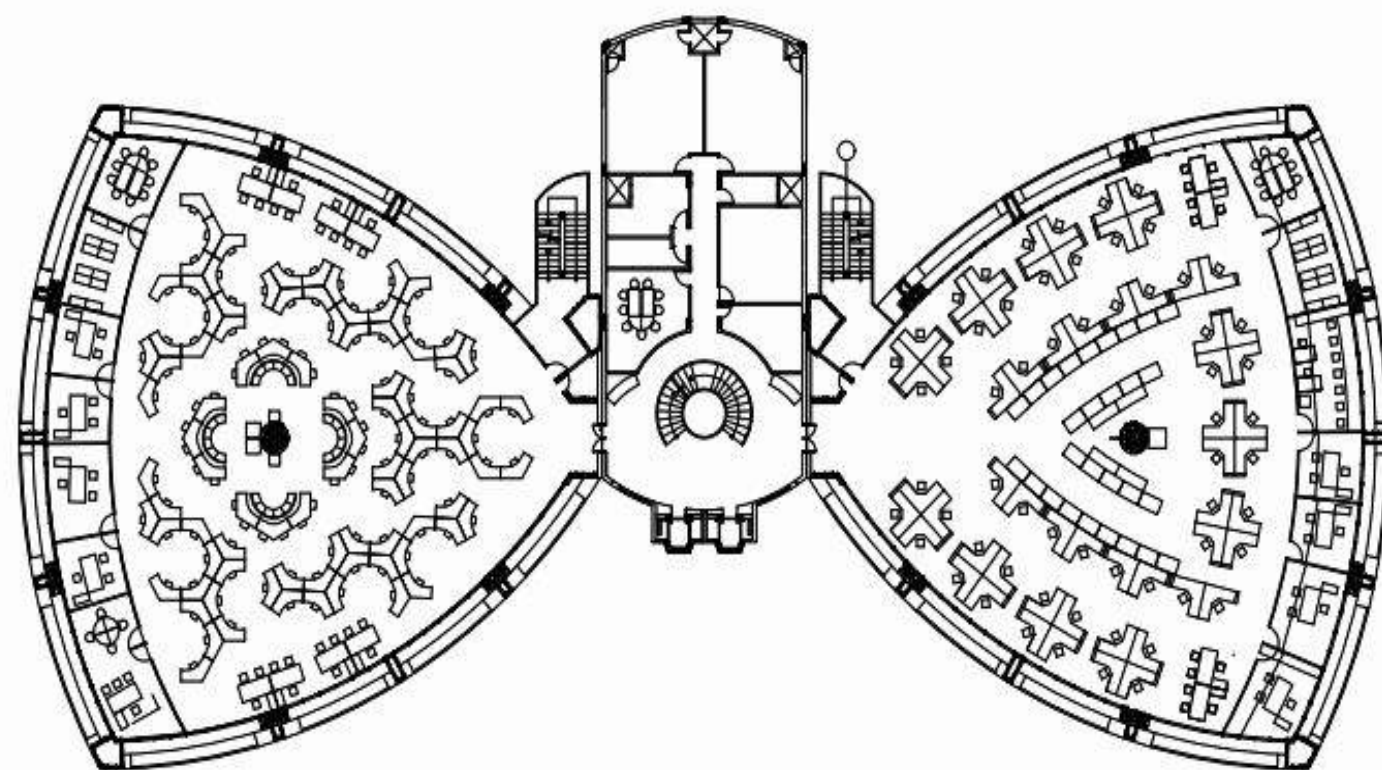
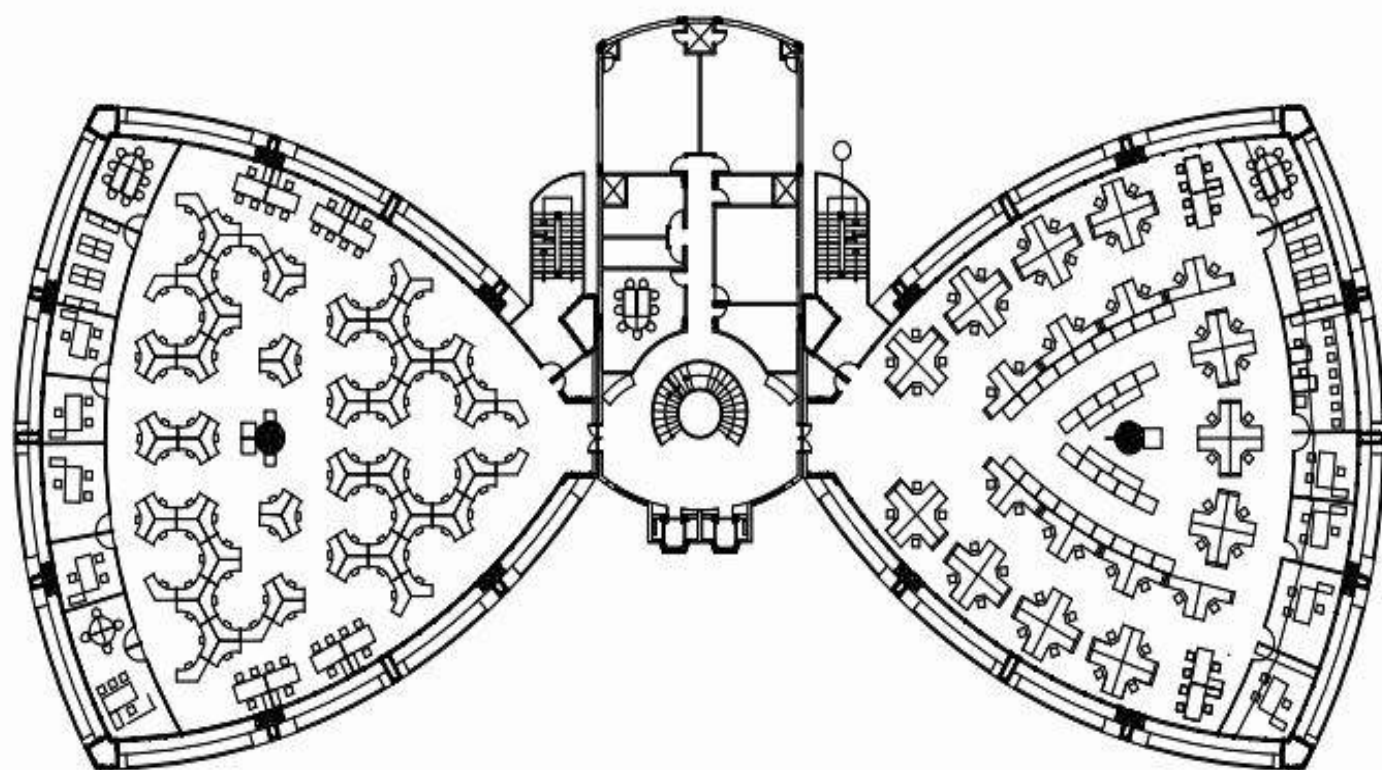
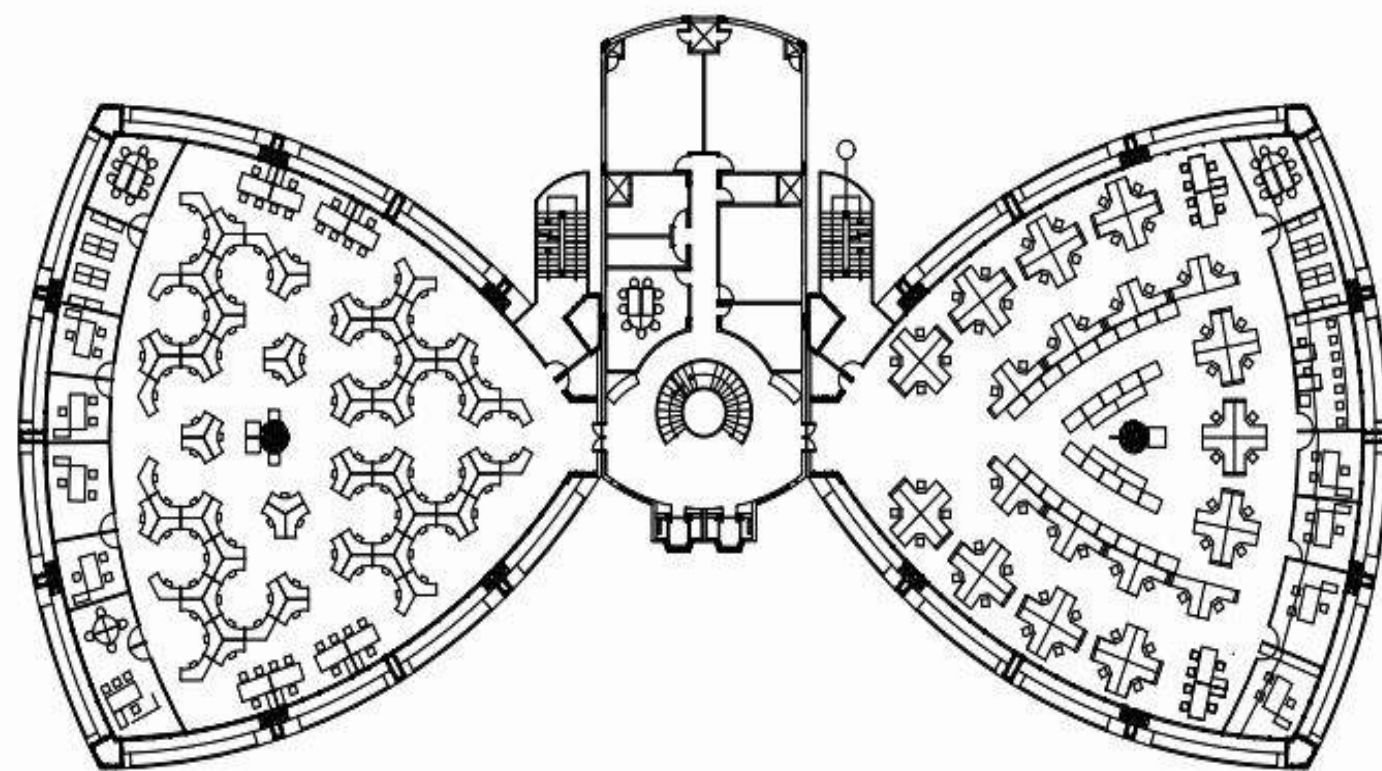
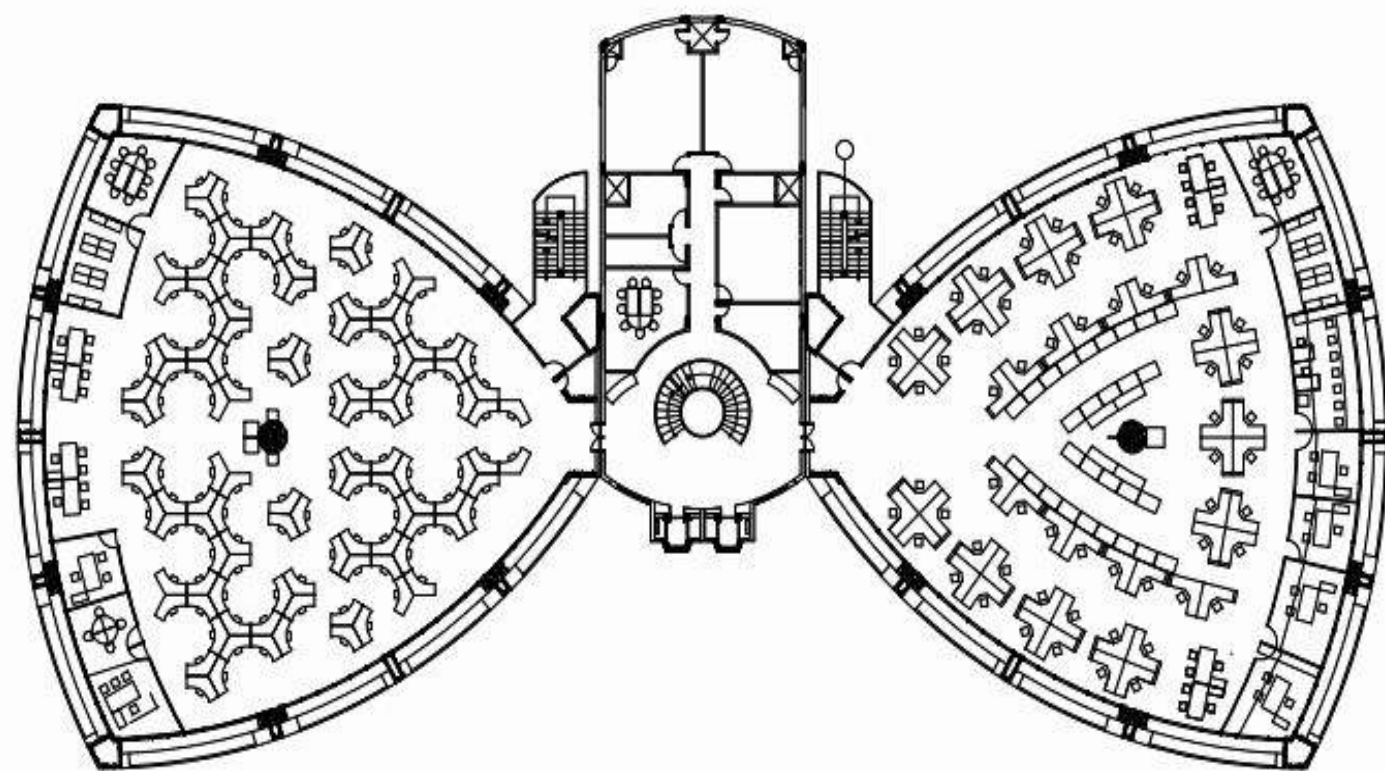


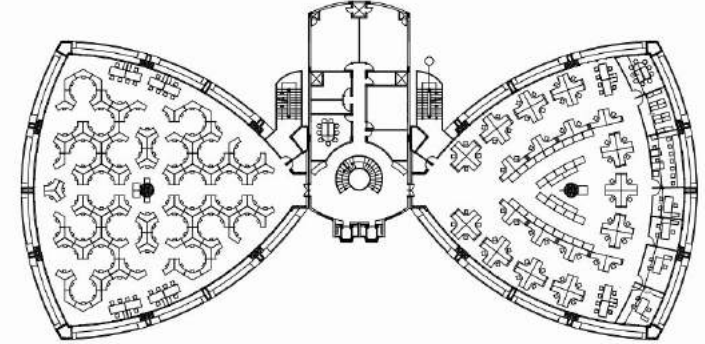
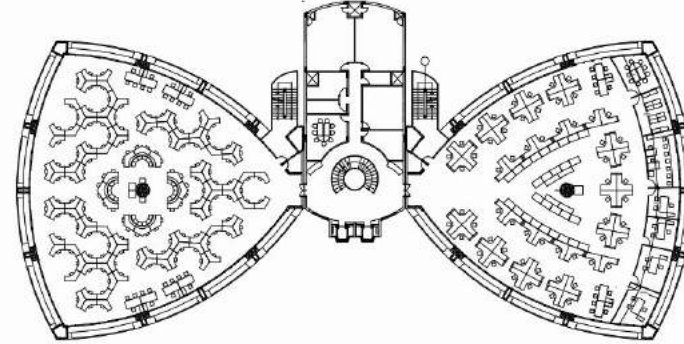
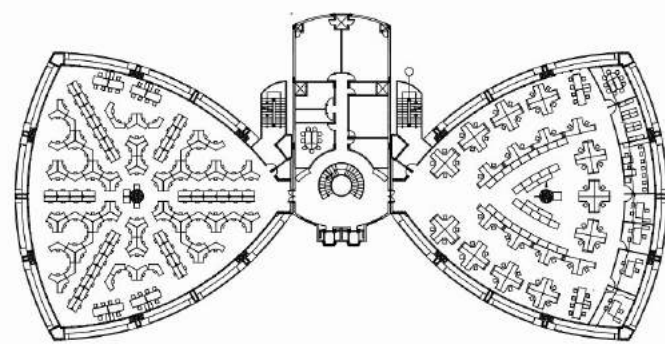
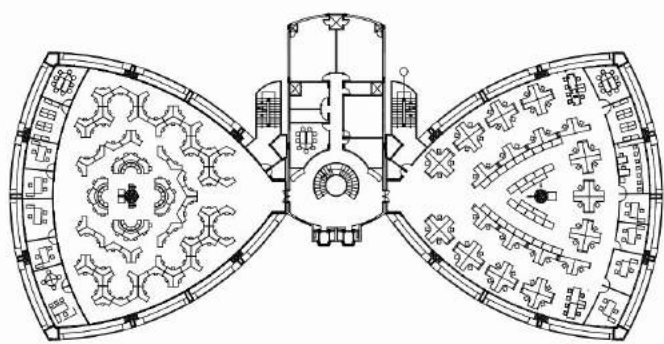
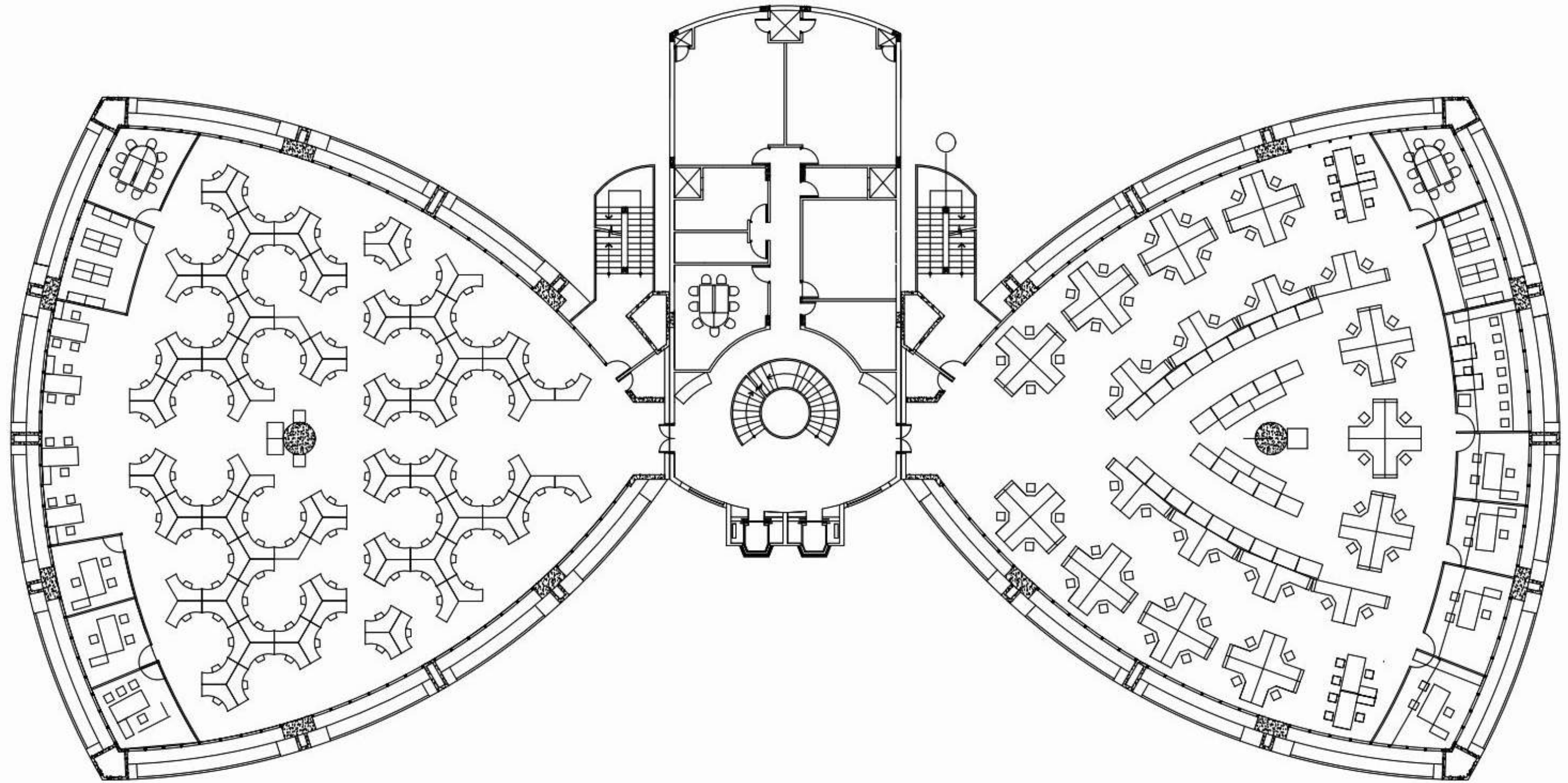
12 Blocks with in-line seating



2 Office desk; 0.5 m² less floor space than 1

(Pg:349&351)







8. EQUINIX DATA CENTER - MUMBAI

The Site is located on Forbes and Company premises on - Unit 15 B, Saki Vihar Road, Sangharsh Nagar, Chandivali, Powai, Mumbai, Maharashtra 400072 India. The size of the plot is around 15,722* m² and is located 1.2KM away from existing Mumbai-1 and 400m away from the existing Equinix Mumbai-2 Data Centre facility. The plot is currently occupied by buildings which are planned for demolition and removal from the site by its present owner. The plot also consists of a large number of trees which either shall require relocation or removal from the site subject to local permitting/approvals. Equinix MB3 is New Data Centre Facility. It is proposed consisting of 14,440 m² Total White Space 20 Nos. of 722 m² IT Halls - Divided in 5 floor. Ground floor dedicated to accommodate utility (Generators and Transformers)

Current scope of works handled : Working on scope, Phase wise divisions, Statutory regulations, Plot area and setbacks, parkings and their dimensions, Area calculations for DC building and ancillary buildings in phase 1 and phase 2 buildings

Phase 1: External Works/Site Infra to include:

- Utility Block comprising of the electrical substation.
- HSD Yards/ all the pump rooms
- All the external services work which includes landscaping and plantation
- Sewerage treatment Plant
- Security Cabin
- Compound Wall

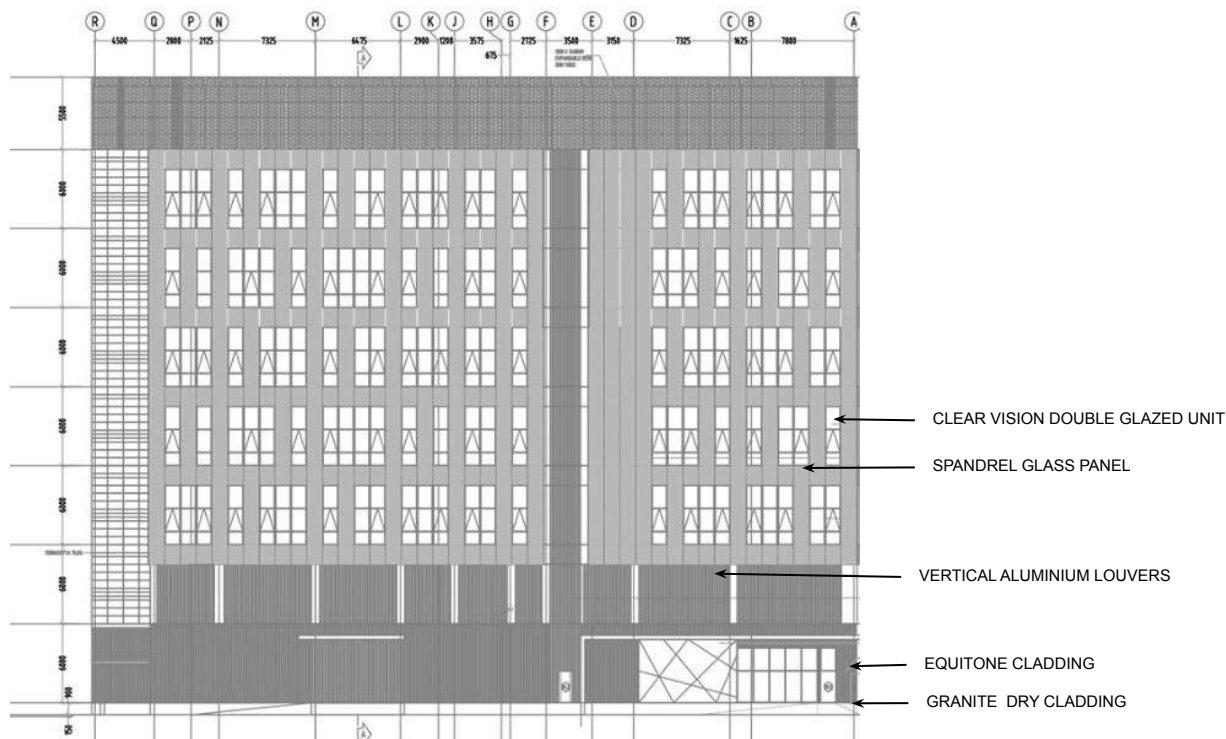


Area	Phase 1	Phase 2	Phase 3	Phase 4
Site Infra	✓	□	□	□
Office Building (S&C + Fitout)	✓	□	□	□
Shell & Core - Building 1 & Substructure work up to Plinth level of Building 2	✓	□	□	□
Megachip 3.1 DC Fitout	✓	□	□	□
Megachip 3.2 DC Fitout	□	✓	□	□
Shell & Core - Building 2 except Substructure work up to plinth level	□	□	✓	□
Megachip 3.3 - DC Fitout	□	□	✓	□
Megachip 3.4 - DC Fitout	□	□	□	✓

GC Scope to include

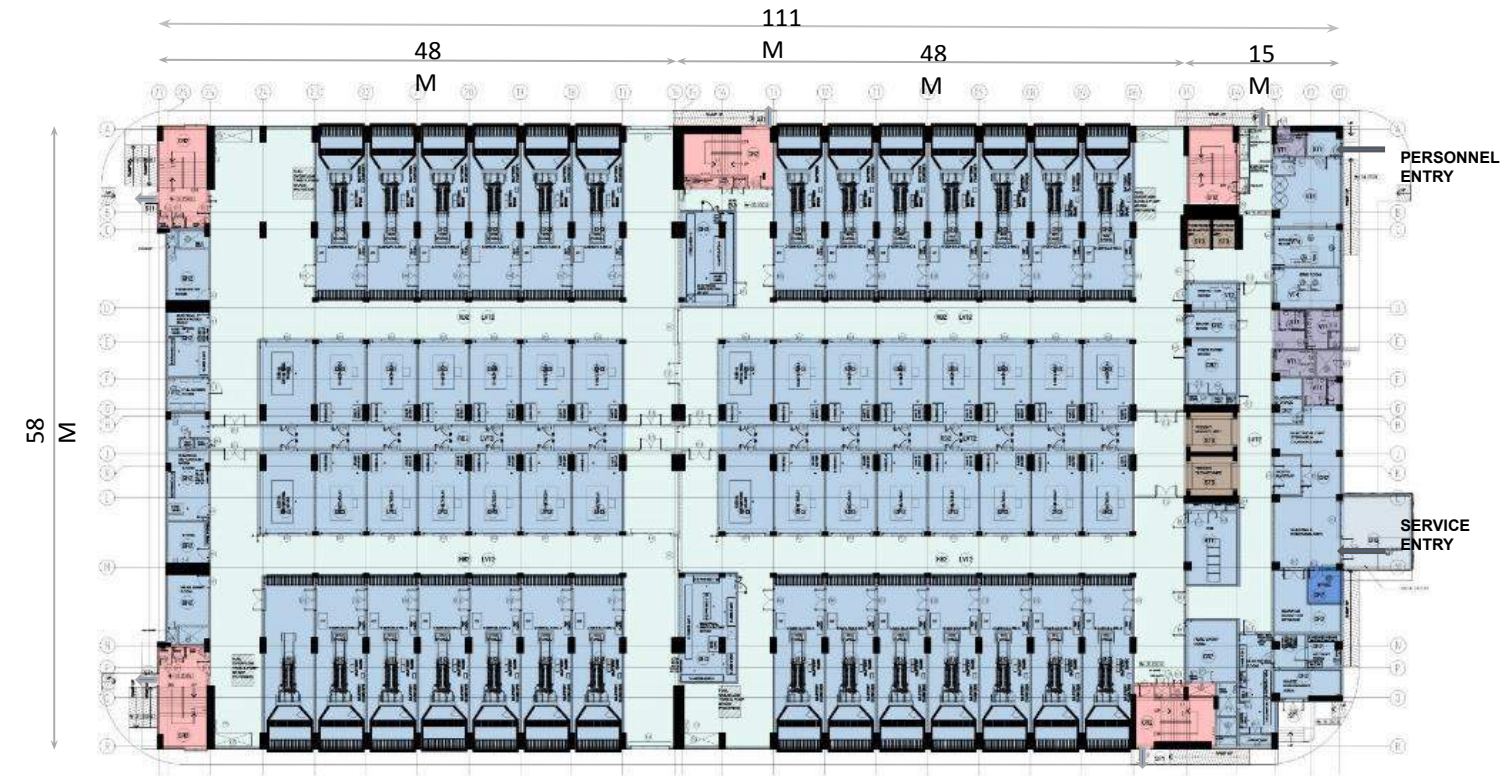
(As per GC Scope of Work Matrix and Document)

- Assisting the Liasoning Consultant (appointed by employer) in securing all the statutory approval/ Permits
- Preparation of all detailed drawing and documents related to the construction as per the statutory requirements.
- Preparation of Project design brief and basis of design documents
- Finalize Master plan
- Detail Design Development of the DC MB3 DC Facility – based on the Concept Design shared by the client.
- Value Engineering and Constructability Review in the Pre-Construction Phase
- Supply and Installation of Signages
- Advise the Employer on alternative methods of construction, buildability, management techniques and ideas to improve the speed, efficiency and economy of the works including providing advice as to the effect on time, capital and life cycle costs.
- Preparation of the detailed BIM model for the Complete building.

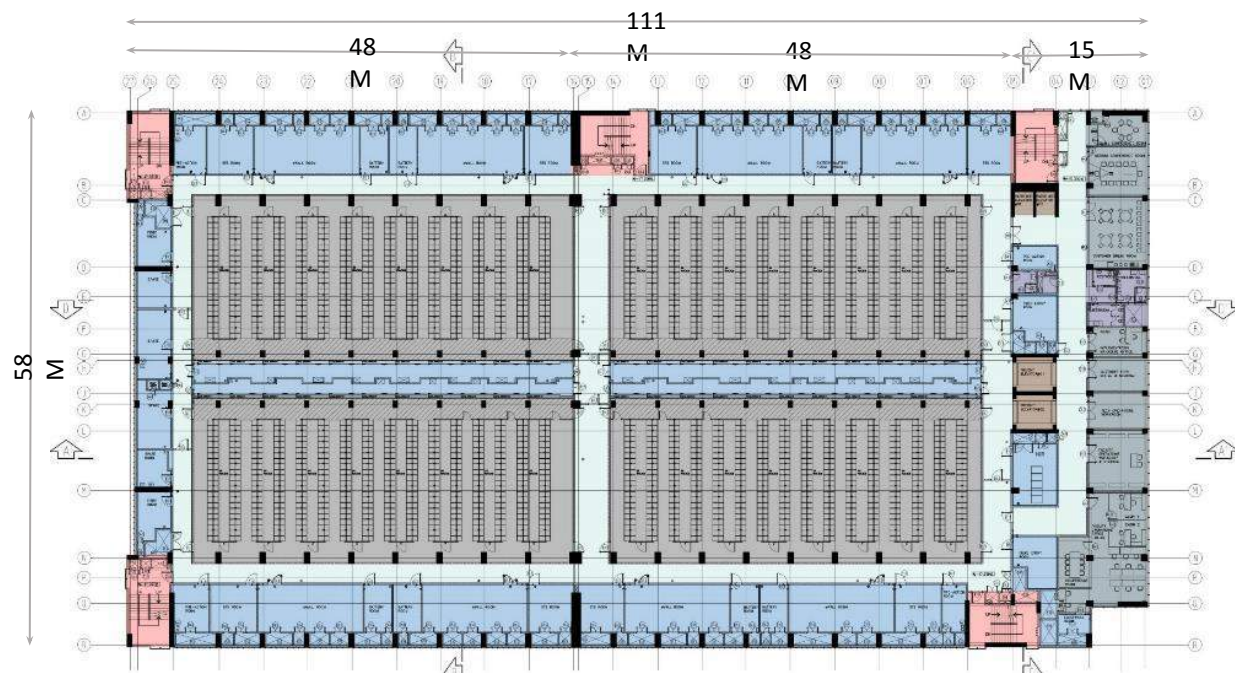


NORTH ELEVATION

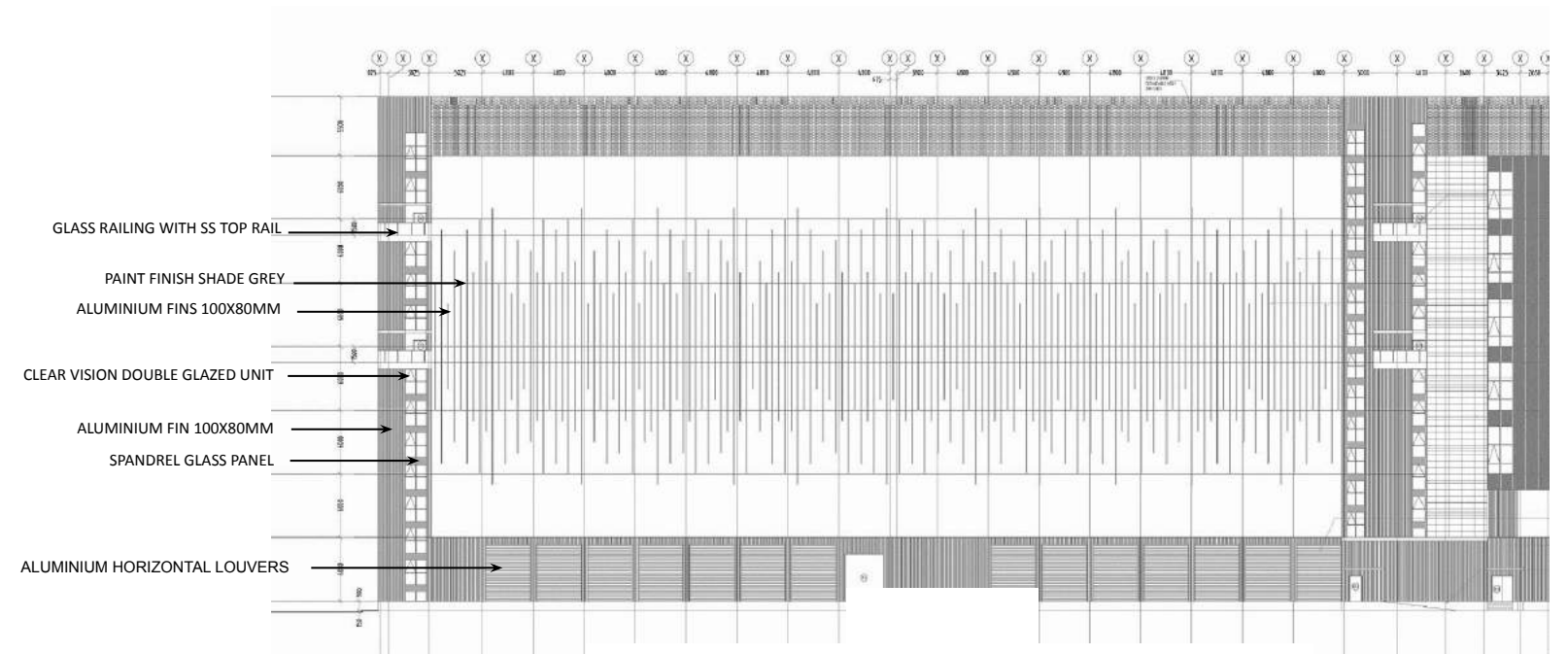
*AS PER CLIENT DOCUMENT/DRAWINGS



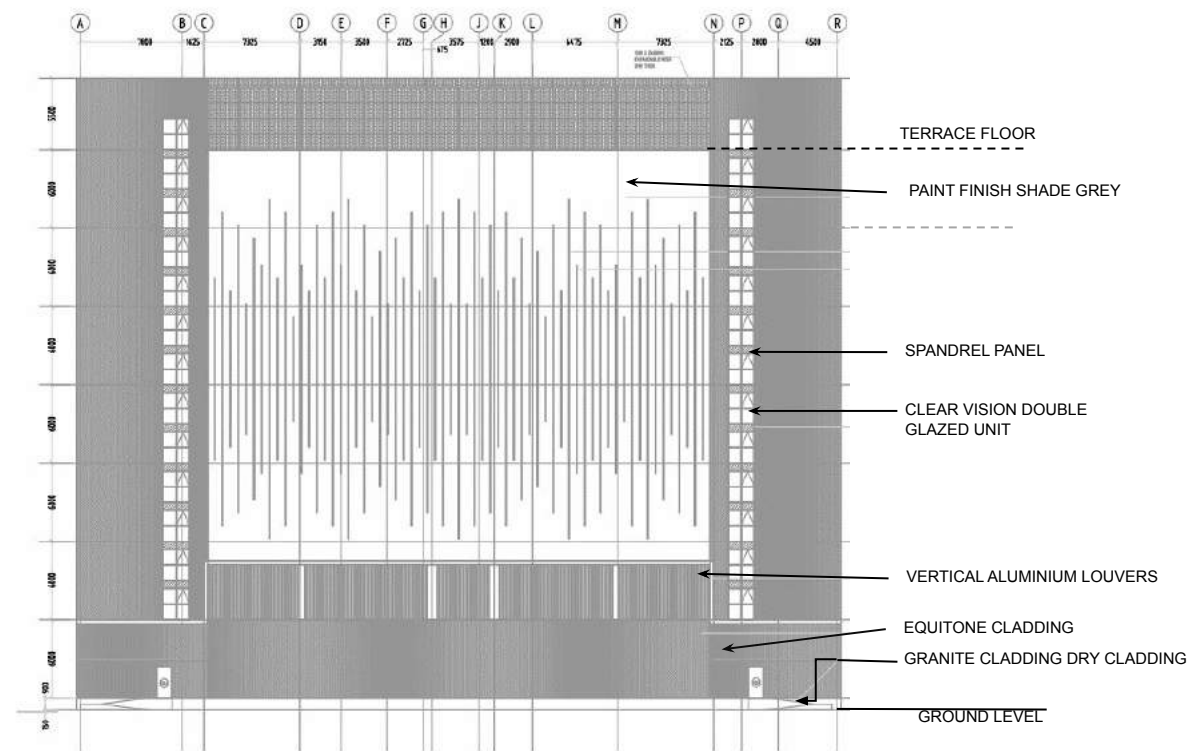
GROUND FLOOR PLAN 6479 Sqm.



TYPICAL FLOOR PLAN 6405 Sqm.

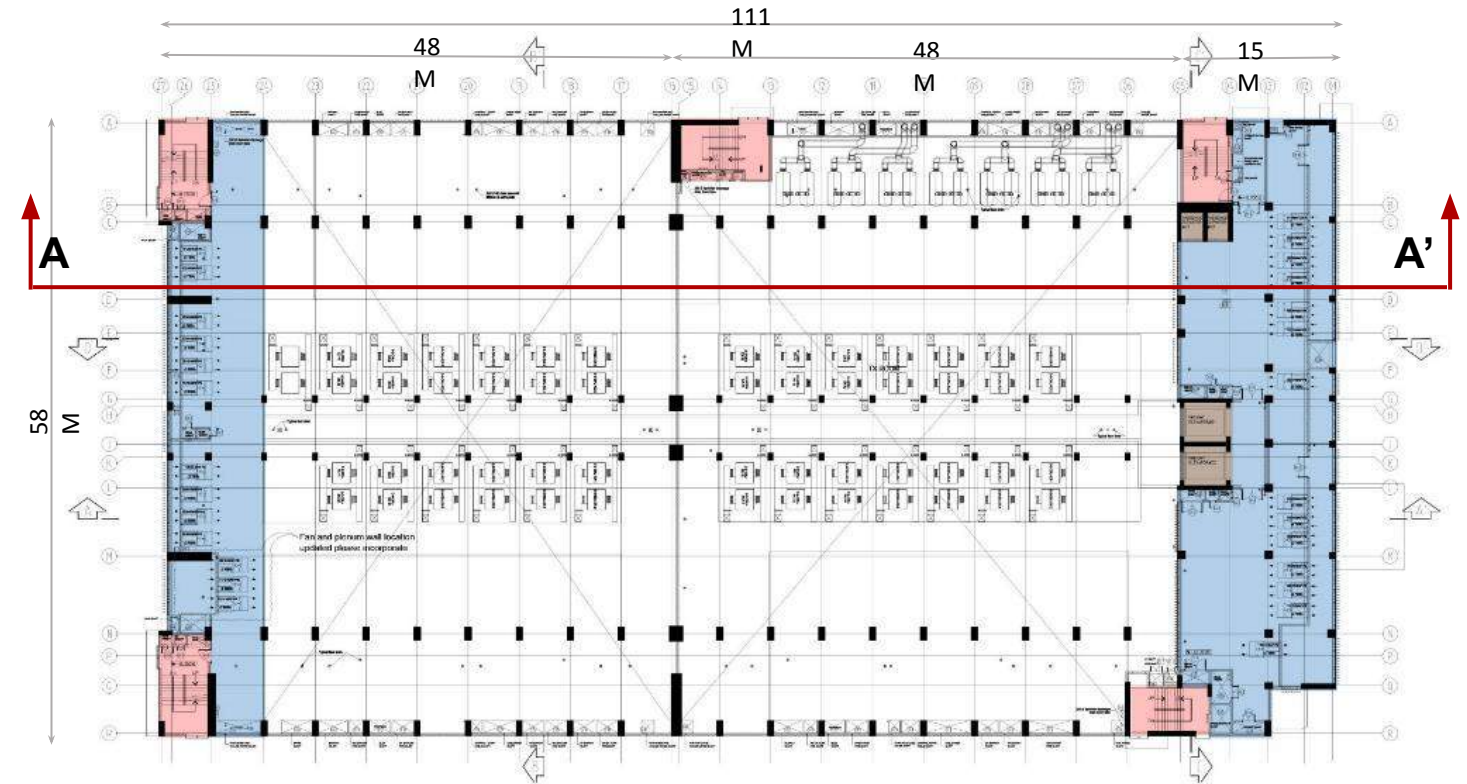


WEST ELEVATION

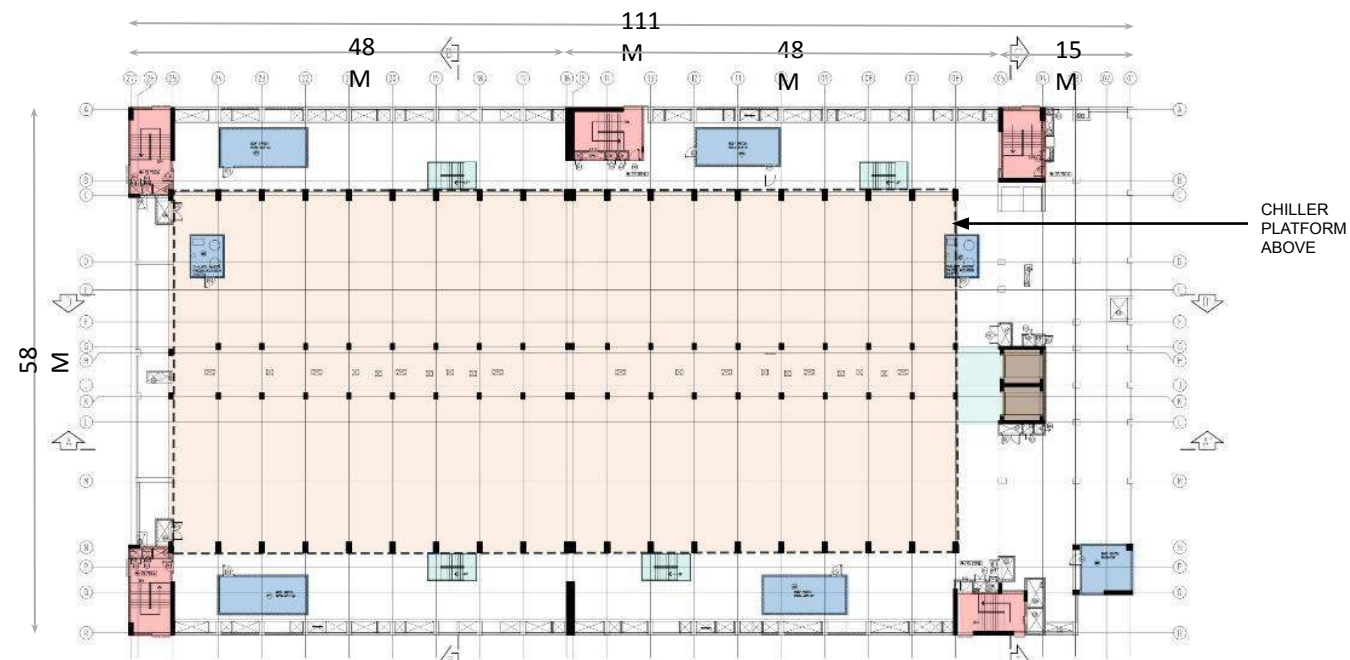


SOUTH ELEVATION

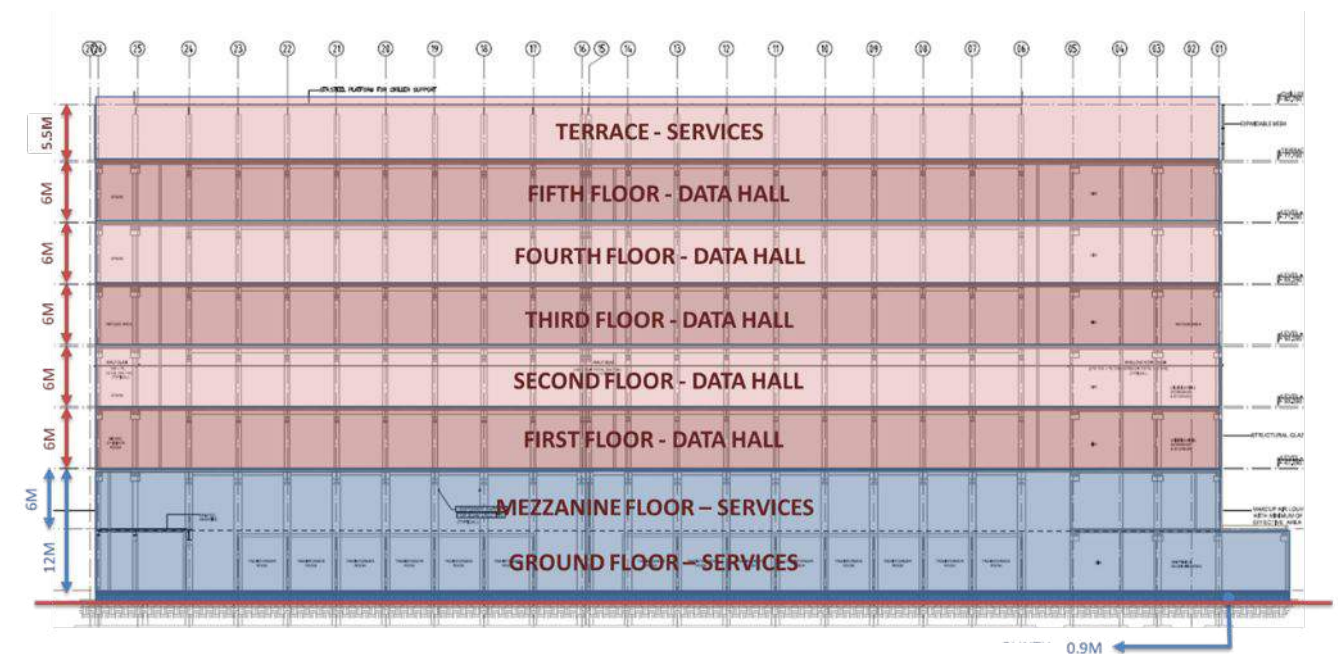
*AS PER CLIENT DOCUMENT/DRAWINGS



MEZZANINE FLOOR PLAN 1368 Sqm.



TERRACE FLOOR PLAN 399 Sqm.



SECTION AA'

The Site is assumed to be under the jurisdiction of MIDC.

MIDC Revised Development Control Regulations 2009 is followed for statutory compliance. The sections not mentioned in MIDC Norms; is then referred with the NBC 2016 for compliance.

The following are the clauses referred to for statutory compliances from MIDC Revised Development Control Regulations 2009

FAR and Ground Coverage

Building Typology	Business / Storage Building		
	FAR Achieved	Max. Permissible Ground Coverage Ratio(GCR)	GCR Achieved
Business	> 1.5	0.5	0.34

Plot Area and Setback

Plot Area	Setbacks on all the sites of the building from Plot boundary	Required	Provided*
Above 5000 sq. m.	9m or 1/3 rd of Building Ht.	Required 1/3 rd of 47.9m = 16m	17.5m; 9.3m; 16.5m, 26.8m; 29.4m

Buildings Setback (Clause 24.2)

Plot Area	Setbacks on all the Sides of the building with Adjacent Building	Required	Provided*
Above 5000 Sq. m.	9m or 1/3 rd of Building Ht. of the Taller Structure	Required 1/3 rd of 47.9m = 16m	16m b/w PHE Pump Room and DC Building; 17.75m b/w Fuel Pump Room and DC Building

Plot Area and Setback

Minimum Area of Green Open Space	Required	Provided*
10% of Plot Area Shall be Given As Open Space	0.1*15722 sqm = 1572 Sqm.	Green Area – 2045 sqm.

Parking Dimensions (Appendix 2)

	Required	Provided*
Car Parking	2.5 x 5M	Surface and Stack Parking : 2.5 x 5M ; 2.3 x 4.5M
Two Wheeler	1.2 x 2.5M	Not Provided
Driveway	6M – Two Way	6M, 7.2M Wide Road
Minimum Turning Radius	9M	9M ; 6M

Parking Requirements (As per MIDC Revised DCR 2009, Table 19)

Building type	Built up area	Sqm. Bua per 1 ECS – As per storage building	No. of Car Parks Required	Provided*
DC Building (G+5)	40504 sqm.	200 sqm.	202	-
		10% additional car park for visitors	21	-
Total car parks			223 cars	123 cars
10% Two Wheelers			10% of 202 = 21 nos.	Not provided

SITE AREA - 15722 SQM (3.98 ACRES)							
DC BUILDING							
		BUILDING 1 - PHASE 1 & 2		BUILDING 2 - PHASE 3 & 4		TOTAL	
SL NO	DESCRIPTION	AREA (SQM)	AREA (SQ FT)	AREA (SQM)	AREA (SQ FT)	AREA (SQM)	AREA (SQ FT)
1	GROUND FLOOR	3640	39176	2839	30562	6479	69737
2	MEZZANINE FLOOR**	817	8794	551	5931	1368	14725
3	FIRST FLOOR	3578	38514	2827	30430	6405	68944
4	SECOND FLOOR	3578	38514	2827	30430	6405	68944
5	THIRD FLOOR	3578	38514	2827	30430	6405	68944
6	FOURTH FLOOR	3578	38514	2827	30430	6405	68944
7	FIFTH FLOOR	3578	38514	2827	30430	6405	68944
8	TERRACE	399	4295	232	2502	631	6797
	SUB TOTAL	22746	244835	17758	191142	40504	435977
ANCILLARY BUILDINGS							
		PHASE 1 & 2		PHASE 3 & 4		TOTAL	
SL NO	DESCRIPTION	AREA (SQM)	AREA (SQ FT)	AREA (SQM)	AREA (SQ FT)	AREA (SQM)	AREA (SQ FT)
1	SUB STATION	202	2176	0	0	202	2176
2	PHE PUMP ROOM	428	4604	0	0	428	4606
3	HSD PUMP ROOM	31	339	0	0	31	339
4	STP & LOAD BANK	17	185	0	0	17	185
5	SECURITY CABIN 1	56	605	0	0	56	605
6	SECURITY CABIN 2	20	211	0	0	20	211
7	HSD YARD (NOT INCLUDED IN BUA)	364	3919	0	0	364	3920
	SUB TOTAL	755	8122	0	0	755	8122
	TOTAL BUILT UP AREA	23501	252957	17758	191142	41258	444100

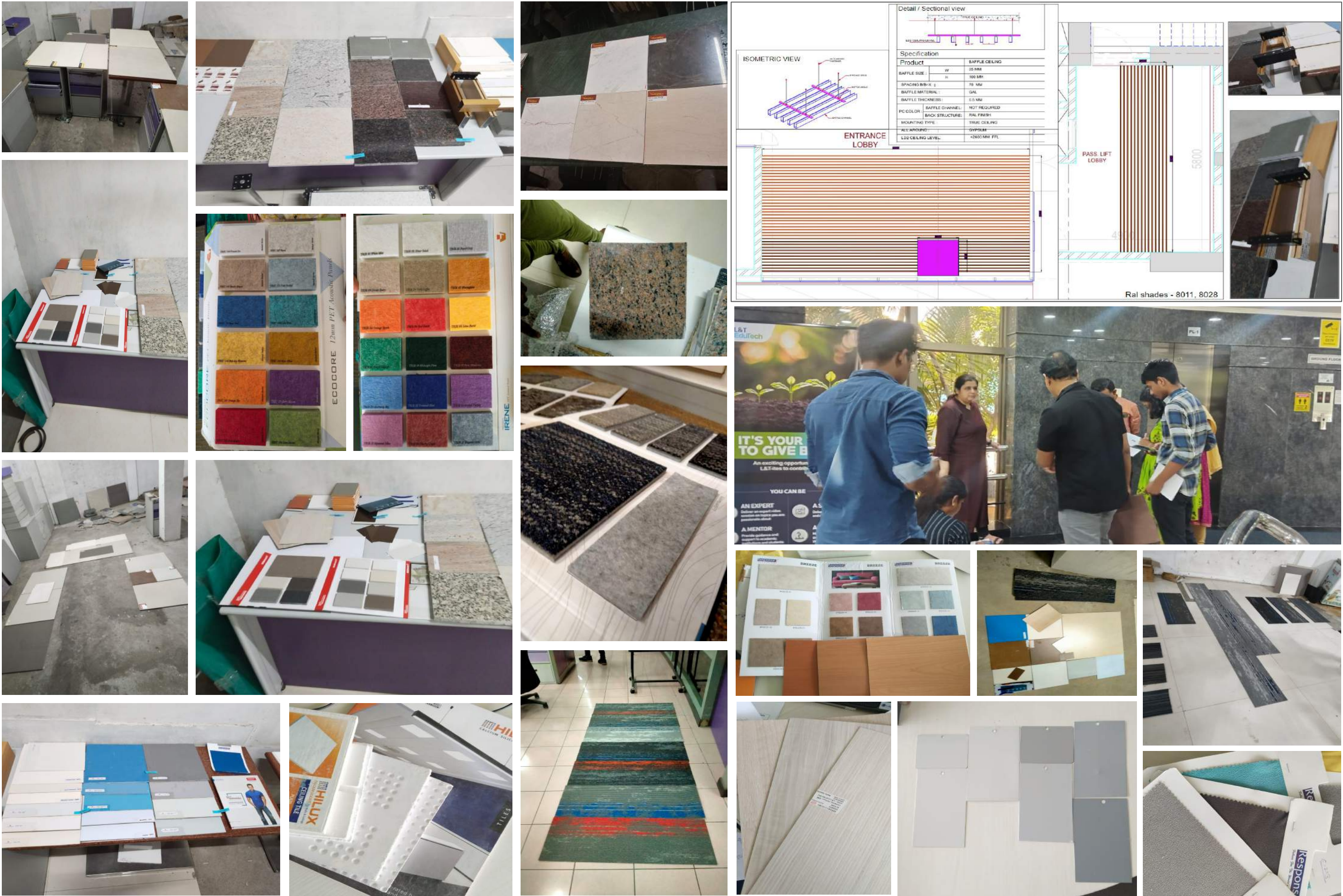
*AS PER TENDER DRAWINGS

**AS PER FLOORING LAYOUT DRAWING

9. POST FINALIZATIONS

L&T Construction Engineering Development and Research Centres, certified for ISO: 9001 – 2008 for their operations, are located at Chennai and Kolkata. From these hubs, multi-disciplinary teams of engineers work on sophisticated software and hardware offering value-added integrated engineering services to clients across projects, with basic & detailed design and engineering support as part of the comprehensive EPC services as well as on a stand-alone basis.

Current scope handled : Material selection, Vendor reference drawings, Client visits, approvals of materials, visiting different brand stores for the required materials for different projects, and multibranding stores like Build HQ, the spotlight sessions, Meeting different architects and knowing about their working process and worklife.





COSMO marbles - visit



Kanchipuram team lunch



Merino experience centre - visit



Central staircase at EDRC



Spotlight program at build HQ



Club day at LnT



Team Lunch



Build HQ - visit



Spotlight program at build HQ



New year preparations



The intern's CABIN



The office - Decorated with E-waste .





10. CRITICAL OVERVIEW

I would firstly like to convey my gratitude to AR.Nagalingam sir, Sharmila mam, Ar. Arpan sir, Ar. Phebe mam, and Ar. Srinadh sir and all my team members for having the immense trust in me, and for the knowledge sharing provided during the program.

We have worked on different projects as mentioned in the above sheets, We were involved in several stages like tender preparation to documentation, interior drawings, rendersing, material selection and client meetings. I feel very overwhelmed for the experience I have gained in 6 months of my internship period.

As an intern at the EDRC, L&T constructions, I have had the opportunity to work with an incredibly talented team of architects. Each member of the team brings a unique set of skills and experience to the table, making for a dynamic and successful group. I am influenced by their dedication to the field and commitment to producing high-quality work. I am proud to be part of such a talented group.



