[ARC 60104]

ADVANCED ARCHITECTURAL CONSTRUCTION

PROJECT 1 - MULTIDISCIPLINARY COLLABORATIVE PROJECT



TRUFFLES - GASTRONOMY HAVEN

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Tutor: Ts. Ahmad Fahmi Zainazlan



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1.1 TASK DELEGATIONS

Tasks Descripton	Assigned To	Deadline	Remarks
Al Prompts and generated Images	All	24 April	Generated 11 types of images from Gemini, Dall-E, ChatGPT and getimg.ai
Sketch Floor Plans and Elevations	Nicolaus & Kimiko	29 April	Designing the spatial layout, the overall spaces and the shape of the building
Roof Details	Kuan Yung	29 April	Research on timber and steel roof details construction
Sectional Joints	William	29 April	Research on wall and ceiling sectional joints
Materiality	Belly	29 April	Research on the materials for both interior and exterior of the building
Finalized Floor Plans and Elevations	Nicolaus & Kimiko & Belly	4 May	Come out with detailed floor plans, indicating staircase, detailed elevations
BIM Model	Nicolaus	10 May	Designing our ideas on revit
Structural & Roof Details	William & Kuan Yung	13 May	Putting structural construction into BIM Model
Finishes & Furnitures	Belly & Kimiko	14 May	Putting furnitures into BIM Model and finishes according to the materials



2.0 PRECEDENT STUDY



Metal Accents: Use brushed or polished metal for columns, beams, and decorative elements to add a touch of sophistication.



Minimalist Lighting
Fixtures: Opt for sleek,
metal-framed lighting to
complement the
industrial materials.



Neutral Color Palette: Stick to a palette of grays, blacks, and metallics to maintain a cohesive and upscale look.



Glass Partitions and Facades: Incorporate large glass panels or partitions to create a sense of openness and allow natural light to permeate the space.



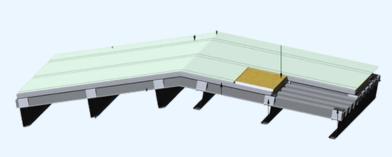
Exposed Concrete Surfaces: Utilize polished or board-formed concrete for walls and ceilings to add texture and a modern industrial feel.

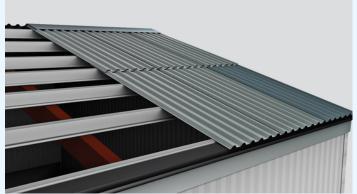


Brick

- inishes: Choose smooth-face, wire-cut, or glazed bricks in tones like charcoal, mocha, pale terracotta, or whitewashed.
- Patterns: Use refined layouts like herringbone, stack bond, or basket weave for visual interest.
- · Applications:
- Exterior: Façade accents, planters, outdoor walls.
- Interior: Feature walls, arches, columns, or decorative screens.
- Lighting: Pair with warm, indirect lighting to highlight texture and depth.
- Balance: Use as an accent alongside wood, glass, or metal to maintain a modern-luxury feel.

ROOF





3.0 AI IMAGE PROGRESSIVE

FIRST AI IMAGE



SECOND AI IMAGE



THIRD AI IMAGE



FINAL AI IMAGE





AI PROMPT

Design a refined fine dining restaurant named Thymes, located in Putrajaya, covering 2500m². The structure is a single-story building with thoughtfully designed 'pop-out' architectural features that bring a soft, organic contrast — hinting at a second-level botanical terrace or elevated garden space.

The exterior should feel serene and grounded, using natural materials like stone, wood, and glass. Incorporate vertical herb gardens, soft ambient lighting, and clean lines to reflect a sophisticated, nature-rooted identity.

For the interior, envision a sanctuary of herbal elegance and botanical artistry. Use a muted, earthy palette — sage greens, warm neutrals, soft wood tones, and organic textures. The design should blend natural light with crafted, intimate lighting.

Feature herb installations, subtle botanical patterns, and minimalist yet warm décor. Each space should feel like a culinary greenhouse — where classic cuisine is reborn through the quiet magic of curated herbs. The atmosphere is both calming and cerebral, turning every meal into a ritual of refined natural indulgence.

Could you generate me an interior render of a fine dining restaurant that is built on a plot of land around 2500 square meters in area.

The following text is a description of the restaurant named "Tarragon"

Where French finesse meets culinary daring, Tarragon is a celebration of timeless elegance and bold Flavors.

Known for its aromatic sophistication, this fine dining gem marries classic techniques with modern flair. Each

course is a dance of layered nuance subtle, seductive, and irresistibly refined designed to leave a lasting

impression on both palate and memory.

Could you generate me an interior render of a fine dining restaurant that is built on a plot of land around 2500 square meters in area.

The following text is a description of the restaurant named "Truffles"

The epitome of indulgent elegance, Truffles is a celebration of rarity, richness, and refined taste. Each creation pays homage to the world's most treasured ingredients, presented with opulence and grace. With an atmosphere as luxurious as its name suggests, Truffles invites guests to Savor decadence with every bite—a

true temple of gourmet splendor.

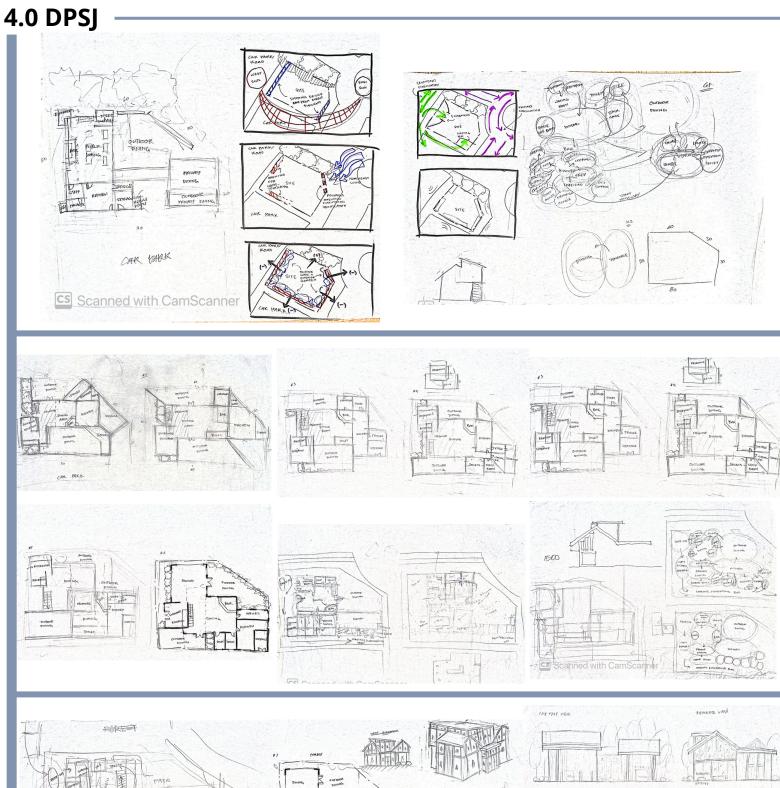
Try including elements that relate to truffles from the color, texture or other qualities

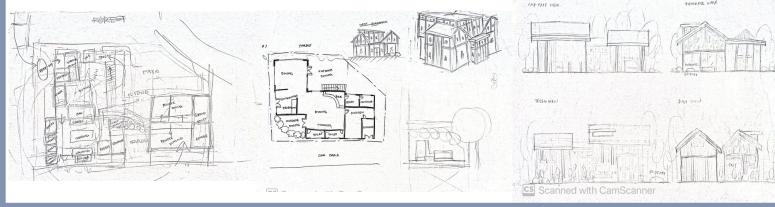
Design a fine dining restaurant named Truffles, located in Putrajaya with a sprawling 2500m² footprint. The architecture is primarily single-story, enhanced by elegant 'pop-out' features that hint at a subtle second-story elevation — adding a layer of exclusivity and visual richness.

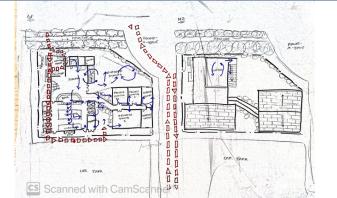
The exterior should radiate indulgent elegance, with rich materials like dark stone, brushed metals, and warm ambient lighting. The design should feel rare, refined, and quietly grand — a modern palace of taste.

For the interior, envision a celebration of gourmet luxury. Think plush velvet seating, dramatic lighting, polished marble surfaces, and golden accents. The color palette should include deep tones like obsidian, truffle brown, and antique gold.

Every element — from the curated art to the glassware — should pay homage to the world's most treasured ingredients and culinary traditions. The space should evoke richness, grace, and a sense of sacred indulgence — a true temple of fine dining where every detail whispers opulence."



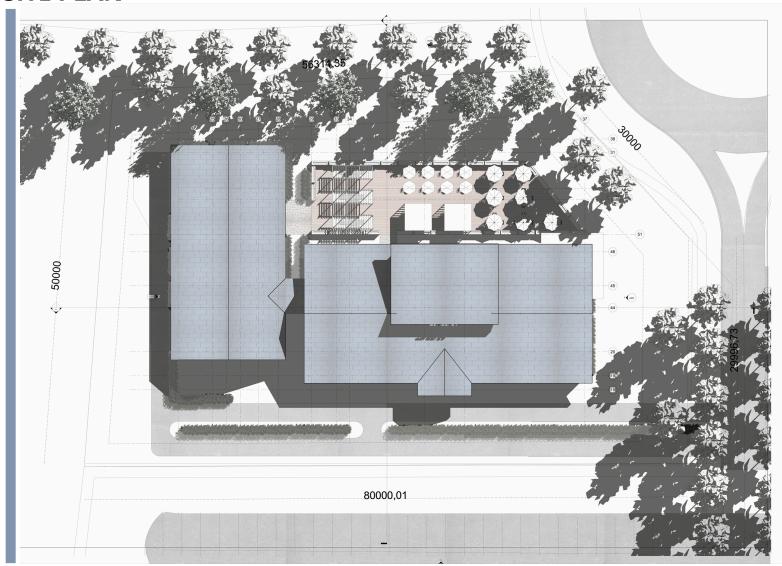




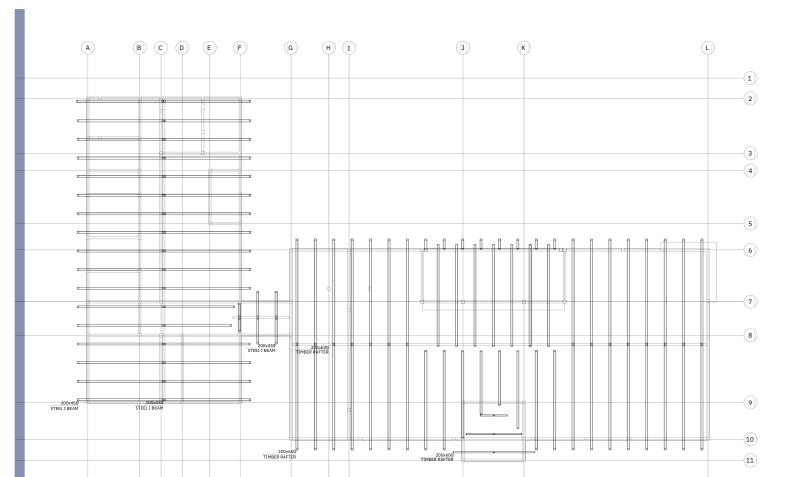


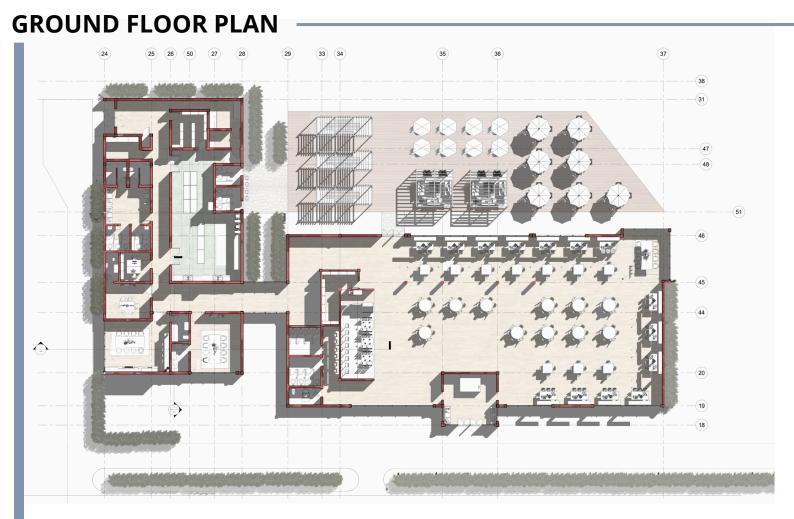
5.0 GENERAL ASSEMBLY

SITE PLAN

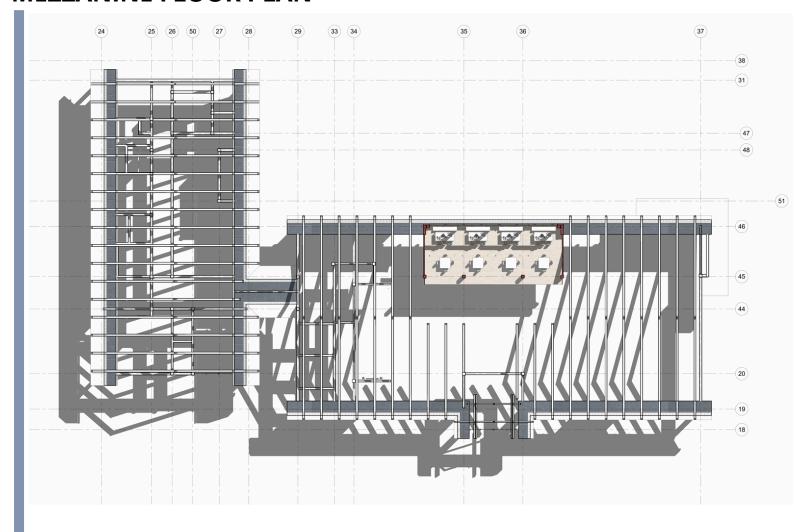


ROOF PLAN

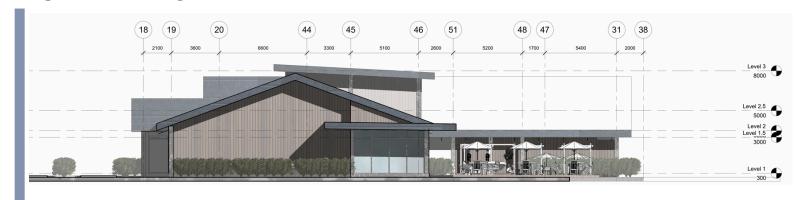




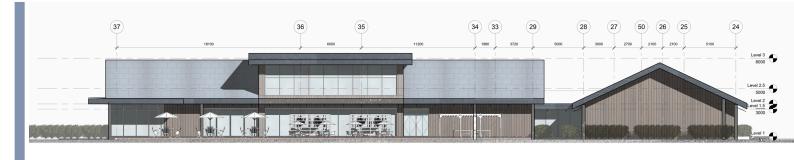
MEZZANINE FLOOR PLAN

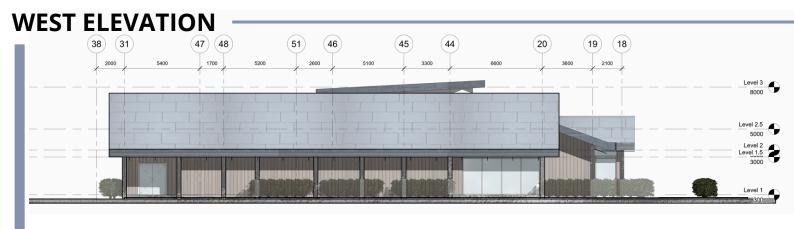


EAST ELEVATION



NORTH ELEVATION





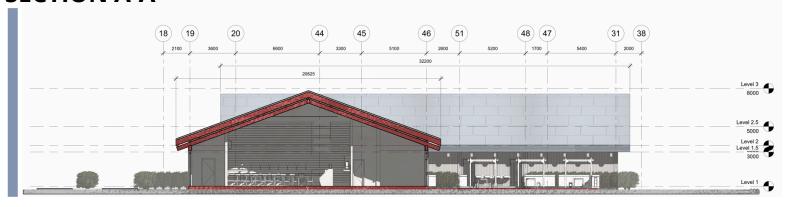
SOUTH ELEVATION



SECTION A-A'



SECTION A-A' -





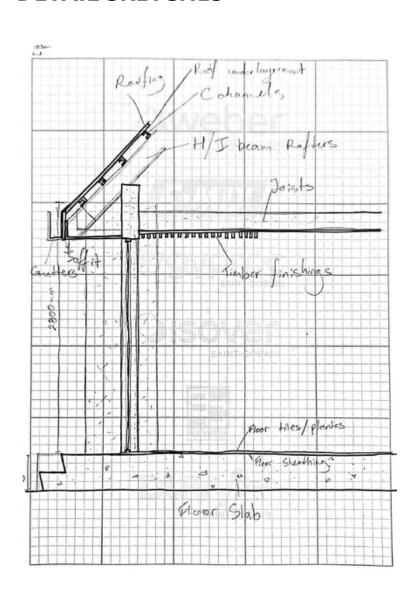


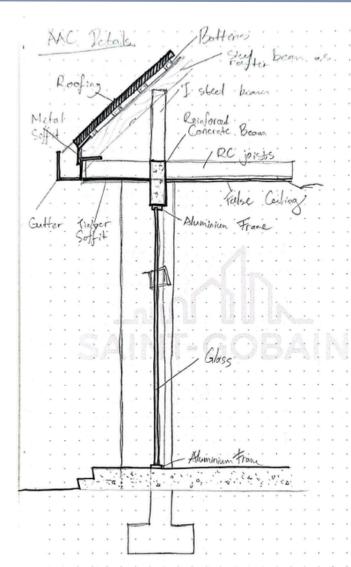
6.0 BIM MODELS

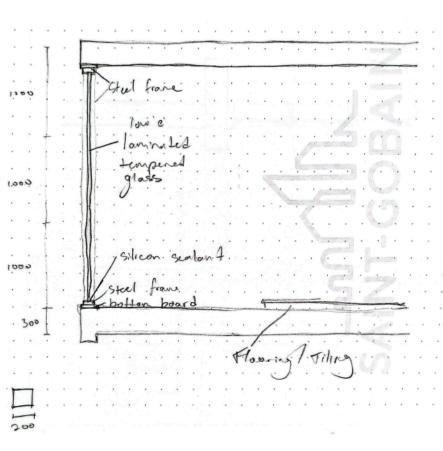


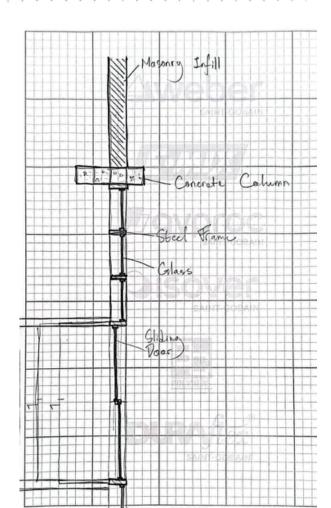


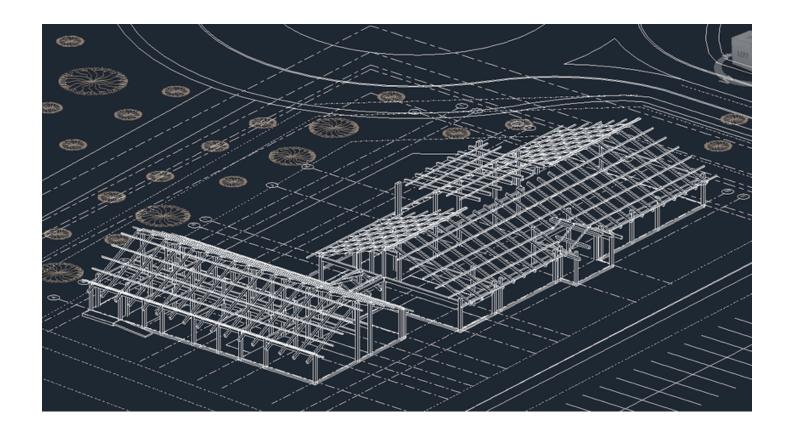
7.0 DESIGN CONSTRUCTIBILITY DETAIL SKETCHES



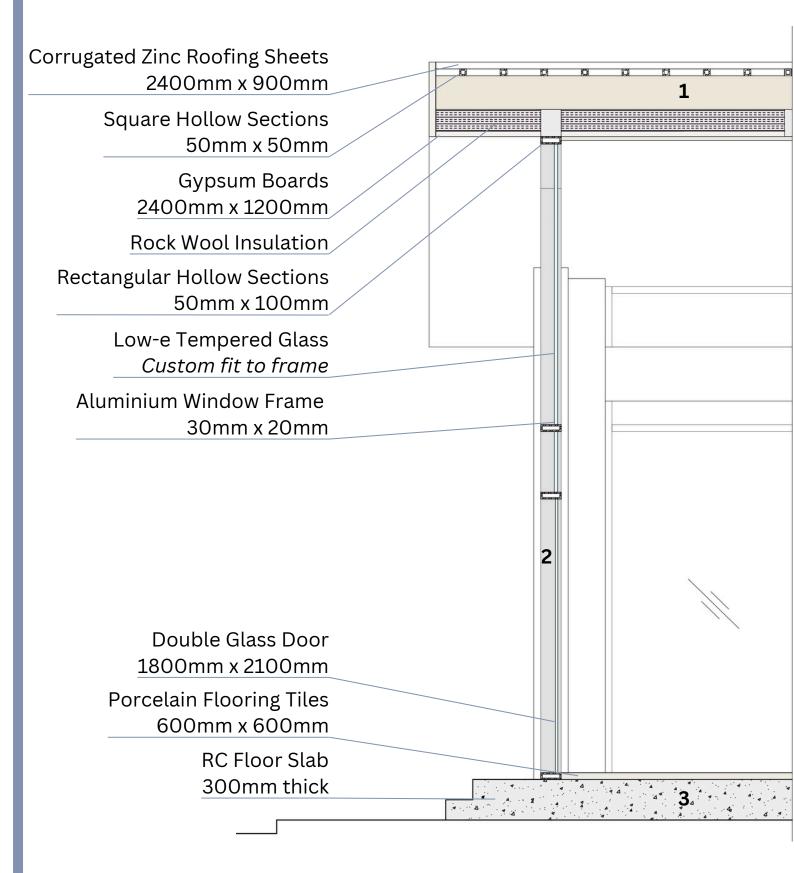








FLOOR TO CEILING DETAIL



- 1. Roof System
- 2. Curtain Wall
- 3. Floor System

8.1 ROOM SCHEDULE -

Area	Room	
1 m ²	M&E Room	
4 m²	Grand Toilet 1	
6 m ²	Grand Toilet 2	
6 m ²	Grand Toilet 3	
6 m ²	Walk-in Cooler	
6 m²	F.Staff W/C	
6 m²	M.Surau	
6 m ²	F.Surau	
6 m²	Outdoor M.Toilet	
7 m²	Outdoor F.Toilet	
7 m²	Disabled Restroom	
7 m²	M.Staff W/C	
10 m ²	Manager's Office	
10 m ²	Refuse Room	
10 m ²	Male Restroom	

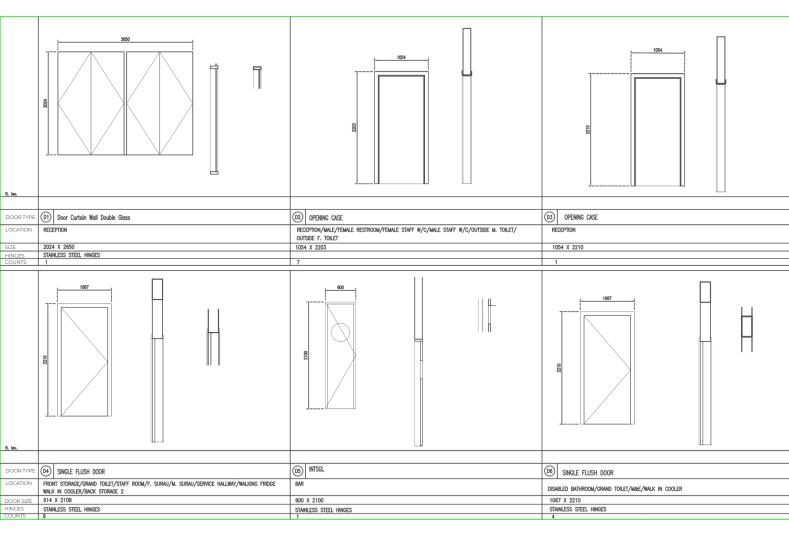
Area	Room	
11 m ²	Walk-In Fridge	
11 m²	Front Storage Area	
11 m²	Female Restroom	
15 m²	Back Storage Area	
19 m²	Staff Room	
19 m²	Private Dining 1	
29 m²	Bar	
33 m²	Reception Area	
36 m²	Private Dining 2	
36 m ²	Cold Kitchen	
41 m²	Private Dining 3	
55 m ²	Service Hallway	
56 m²	Hot Kitchen	
84m²	Mezzanine	
88 m²	Connecting Hallway	
609 m²	Dining Area	

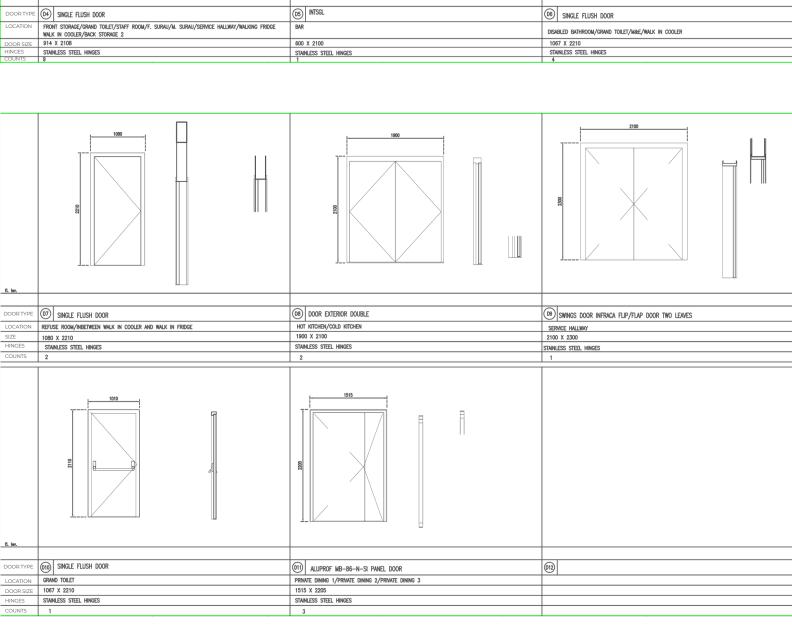
Grand total: 1251m²

8.2 FINISHES AND MATERIALS SCHEDULE

Block	Room Name	Floor Finish	Skirting	Wall Finish	
	Reception Area	- 600 x 600 mm Polished porcelain tiles	- 300 x 100mm ht. ceramic tiles.	-10mm. thk, 600 x 2400mm Coated timber veneer panels	
FRONT OF HOUSE	Dining Area	- 600 x 600 mm Polished porcelain tiles	- 300 x 100mm ht. ceramic tiles.	4mm. thk. Skim Coat and Emulsion Paint, 10mm. thk, 600 x 2400mm Coated timber veneer panels	
	Front Storage Area	- 4mm. thk,1220 x 180mm Vinyl Planks		- 4mm. thk. Skim Coat and Emulsion Paint	
	Bar	- 600 x 600 mm Polished porcelain tiles		- 4mm. thk. Skim Coat and Emulsion Paint	
	Disabled Restroom	300 x 300mm Non-slip ceramic tiles with water proofing.		- 600 x 1200mm Glazed ceramic tiles	
	Female Restroom	300 x 300mm Non-slip ceramic tiles with water proofing.	-	- 600 x 1200mm Glazed ceramic tiles	
	Male Restroom	- 300 x 300mm Non-slip ceramic tiles with water proofing.	-	- 600 x 1200mm Glazed ceramic tiles	
	Mezzanine	- 120 x 1800mm Coated Timber Planks		- 4mm. thk. Skim Coat and Emulsion Paint	
	Spiral Staircase	Stainless steel nosing, with black anti-slip strip	-	- Paint finished.	-
BACK OF HOUSE	Connecting Hallway	- 600 x 600 mm Polished porcelain tiles	-	4mm. thk. Skim Coat and Emulsion Paint, 10mm. thk, 600 x 2400mm Coated timber veneer panels	
	Private Room 1	- 120 x 1800mm Coated Timber Planks	- 300 x 100mm ht. ceramic tiles.	- 4mm. thk. Skim Coat and Emulsion Paint, 200 x 2800mm WPC slatted wood panels	-
	Private Room 2	- 120 x 1800mm Coated Timber Planks	- 300 x 100mm ht. ceramic tiles.	 4mm. thk. Skim Coat and Emulsion Paint, 200 x 2800mm WPC slatted wood panels 	
	Private Room 3	- 120 x 1800mm Coated Timber Planks	- 300 x 100mm ht. ceramic tiles.	- 4mm. thk. Skim Coat and Emulsion Paint, 200 x 2800mm WPC slatted wood panels	
	Grand Toilet 1	- 300 x 300mm Non-slip ceramic tiles with water proofing.	-	- 600 x 1200mm Glazed ceramic tiles	
	Grand Toilet 2	- 300 x 300mm Non-slip ceramic tiles with water proofing.	-	- 600 x 1200mm Glazed ceramic tiles	
	Grand Toilet 3	300 x 300mm Non-slip ceramic tiles with water proofing.	-	- 600 x 1200mm Glazed ceramic tiles	
	Management Office	- 4mm. thk,1220 x 180mm Vinyl Planks	-	- 4mm. thk. Skim Coat and Emulsion Paint	
	Staff Room	- 4mm. thk,1220 x 180mm Vinyl Planks		- 4mm. thk. Skim Coat and Emulsion Paint	
	W. Staff W/C	300 x 300mm Non-slip ceramic tiles with water proofing.	-	- 600 x 1200mm Glazed ceramic tiles	-
	M. Staff W/C	- 300 x 300mm Non-slip ceramic tiles with water proofing.	-	- 600 x 1200mm Glazed ceramic tiles	-
	F. Surau	- 4mm. thk,1220 x 180mm Vinyl Planks	-	- 4mm. thk. Skim Coat and Emulsion Paint	-
	M. Surau	- 4mm. thk,1220 x 180mm Vinyl Planks		- 4mm. thk. Skim Coat and Emulsion Paint	-
	Walk-in Fridge	600 x 600mm Non-slip ceramic tiles with water proofing.	-	- 1mm. thk. Stainless steel panels	-
	Walk-in Cooler	600 x 600mm Non-slip ceramic tiles with water proofing.	-	- 1mm. thk. Stainless steel panels	-
	Cold Kitchen	600 x 600mm Non-slip ceramic tiles with water proofing.	-	- 600 x 1200mm Glazed ceramic tiles	-
	Hot Kitchen	- 600 x 1200mm Glazed ceramic tiles with water proofing.	-	- 600 x 1200mm Glazed ceramic tiles	-
	Back Storage Area	- 600 x 1200mm Glazed ceramic tiles with water proofing.	•	- 600 x 1200mm Glazed ceramic tiles	-
	Service Hallway	600 x 1200mm Glazed ceramic tiles with water proofing.	-	- Plaster & Paint finished.	-
	M&E Room	- Cement Render	-	- Plaster & Paint finished.	
	Refuse Room	- 300 x 300mm Non-slip ceramic tiles with water proofing.	-	- 600 x 1200mm Glazed ceramic tiles	-
	Outdoor F. Toilet	- 300 x 300mm Non-slip ceramic tiles with water proofing.	-	- 600 x 1200mm Glazed ceramic tiles	-
	Outdoor M. Toilet	- 300 x 300mm Non-slip ceramic tiles with water proofing.	-	- 600 x 1200mm Glazed ceramic tiles	-
	Exterior Walls	with water probling.	-	- 200 x 2800mm WPC slatted wood panels, 1200 x 2700mm Waterproof timber veneers	-
	Pathway	- 100mm Imprinted pattern on cement	-	-	-
	Decking	- 150 x 2900mm WPC decking	-	-	-
	Ramp	Steel trowelled power float concrete floor hardener with imprinted groove line.	-	-	-

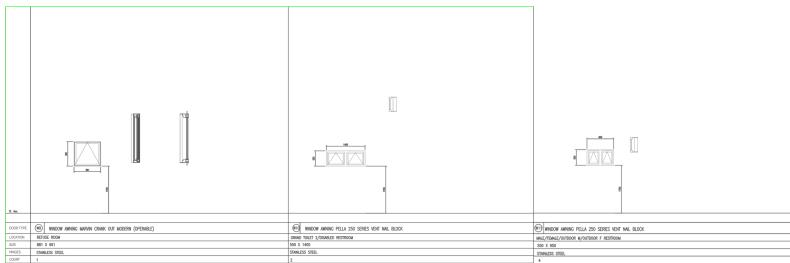
8.3 DOOR SCHEDULE -





8.4 WINDOW SCHEDULE -



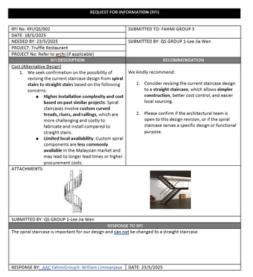


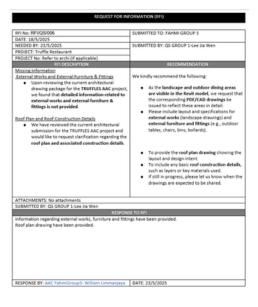
9.0 REQUEST FOR INFORMATION -

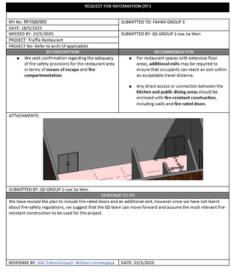
RFI #1

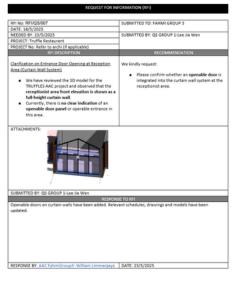
RFI No: RFI/Q5/002	SUBMITTED TO: FAHMI GROUP 3
DATE: 17/5/2025	
NEEDED BY: 19/5/2025	SUBMITTED BY: QS GROUP 1-Lee Jia Wen
PROJECT: Truffle Restaurant	
PROJECT No: Refer to archi (if applicable)	
RFI DESCRIPTION	REQUEST
Relevant Drawings We are requesting for the relevant information require for the cost estimation of the Truffle Restaurant Project.	We kindly request that all relevant information available be shard with us by the 19th of May, 2025
ATTACHMENTS: -	
SUBMITTED BY: QS GROUP 1-Lee Jia Wen	
RESP	ONSE TO RFI
The following are link attached is for the google drive AAC Truffles Restaurant Drawings	e containing the relevant drawings for our project.

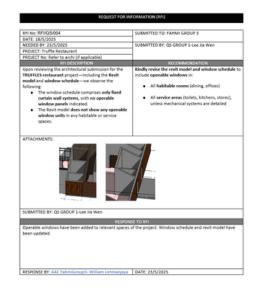
RFI #2











RFI #3

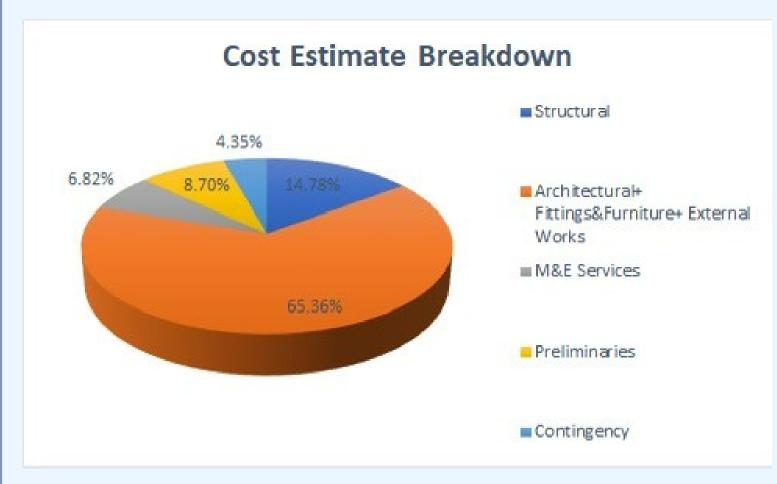
RF	RFI No: RFI/ARC/001					TED TO: QS GROUP	1-Lee Jia Wen
DATE: 27/5/2025					-		a decision mess
NEEDED BY: 29/5/2025					SUBMIT	TED BY: FAHMI GRO	HP %
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COST ESTIMATION

PROJECT NAME: Fahmi G3

1245 m2

ITEM	COMPONENTS	COST / AREA (RM)	AMOUNT (RM)	PERCENTAGE OF TOTAL COST (%)	REMARKS
1	Structural	RM1,355.81	RM1,687,988.24	14.78%	
2	Architectural+ Fittings&Furniture+ External Works	RM5,997.51	RM7,466,895.91	65.36%	
3	M&E Services	RM625.46	RM778,702.00	6.82%	
4	Preliminaries	RM797.88	RM993,358.62	8.70%	
5	Contingency	RM398.94	RM496,679.31	4.35%	
	Total Estimated Construction Cost =	RM9,175.60	RM11,423,624.07	100.00%	



11.1 TEAM MEMBERS SUMMARY & REFLECTIONS

SUMMARY

This report presents a collaborative design project involving architecture and quantity surveying students in the development of a 2,500 m² dine-in restaurant located in Putrajaya. The assignment simulates a real-world interdisciplinary workflow, focusing on schematic design, constructability, and documentation. The project is divided into four main tasks: generating Al-assisted design prompts, translating conceptual outputs into practical spatial layouts, exploring construction methods and material applications, and preparing architectural information for cost estimation and budgeting. Emphasis is placed on integrating Al tools with design intent, evaluating feasibility, and fostering effective collaboration. The project enhances students' understanding of early-stage design development, interdisciplinary communication, and the practical considerations required in architectural practice.

REFLECTIONS

BELLY WONG - Through handling the visual representation of our design, I learned how to clearly and effectively communicate complex architectural ideas. Producing the presentation boards pushed me to improve both my graphic layout and rendering abilities, which were crucial in conveying constructability. The project also made me more mindful of client perspectives, ensuring the restaurant design was not only functional but also appealing and marketable. Collaborating with the team taught me the importance of visual clarity in interdisciplinary work and helped me manage deadlines and expectations across different parts of the project.

KIMIKO YONG YI XUAN - My focus on sustainable strategies during the project helped me explore how low-impact materials and passive design could be realistically integrated into a restaurant. I learned that sustainability was about making informed choices that balance environmental responsibility with cost and constructability, something that became evident through feedback from QS students. This experience deepened my critical thinking and helped me articulate sustainable concepts within a practical architectural narrative. I also grew more confident in advocating for innovation while understanding the importance of compromise and realism in design.

WILLIAM LIMMANJAYA - Leading this restaurant design project was a very fun experience. It challenged me to coordinate our group's vision while staying grounded in practical constructability. Balancing architectural creativity with construction, I learned to communicate effectively with Quantity Surveying students, to ensure our design met both aesthetic and cost constraints. Managing the timeline and team dynamics sharpened my leadership and problem-solving skills. Most importantly, I learned the value of inclusive decision-making, where every team member's perspective contributed to a more robust and well-rounded design proposal.

NICOLAUS PUTRA TANJAYA - participating in this project allowed me to refine my understanding of architectural detailing and develop design strategies that were not just visually compelling but constructible. Material choices and their implications on cost and buildability became much clearer through collaboration with QS students, prompting me to adapt my design based on feedback. I also deepened my technical drawing and BIM modeling skills while learning to document designs for real-world clarity. This experience emphasized the importance of team communication and adaptability, especially when iterating on ideas under tight deadlines.

CHEE KUAN YUNG - My role in focusing on structural integration and services coordination offered invaluable insight into the technical backbone of architectural design. Understanding how structural systems interact with spatial design helped me approach architecture with more realism. I was particularly challenged to ensure feasibility in large open dining spaces. Collaborating with QS students made me more sensitive to how technical decisions impact cost and constructability. I came away from this project with a greater appreciation for multidisciplinary coordination and the practical side of architecture.

11.2 REFERENCES -

Ching, F. D. K. (2015). Architecture: Form, Space, and Order (4th ed.). Wiley.

Buxton, P. (Ed.). (2021). Metric handbook: Planning and design data (6th ed.). Routledge.

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Ernst Neufert, Neufert, P., Johannes Kister, Sturge, D., & Luhman, N. J. (2019). Architects' data. John Wiley & Sons, Ltd; Hoboken, Nj.

Ching, F. D. K. (2014). Building construction illustrated (5th ed.). Wiley.