ARCHITECTURE PORTFOLIO

Selected Practice Work 2009-2024

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AIGC

ArtiÞcial Intelligence Generative Content

Project 1 - ArtiÞcial Intelligence Generative Content Based WorkßOw

Hainan Province Design and Research Institute Co. Ltd
Haikou, Hainan, China

Case 1 - Mansion Redesign

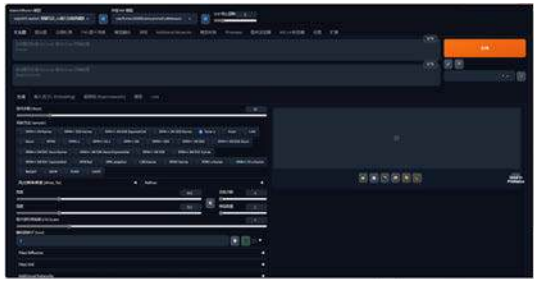
LLM (Large Language Model) based artiÞcial intelligence becomes a prevailling trend in 2023. Using ChatGPT, Midjourney, and Stable Diffusion, Architects and designers can easily generate images and texts in a short time. Architects can also provide design images as input information to AI and train the models, by which they achieve speciÞc design outcome. Here are three different cases where I use AIGC to Þnilize the design efÞciently.

INTRODUCTION

The client has accepted the layout of original design but he is not happy with the facade design. To produce many design options in a short time. I adopted AIGC workßow and use the original design to generate different options. After the client selected one option, I provided 5 rounds of iterative design to improve it.

Original Design

Original Design



Original design to be imported into Stable Diffusion

Semantic Segmentation Information Extracted From Original Deisgn

Normal Information Extracted From Original Deisgn

Depth Information Extracted From Original Deisgn

Outline Information Extracted From Original Deisgn

ADDING PROMPT

Option 1

Option 2

Option 3

Option 4

Option 5

Option 6

Option 7

Option 8

Detailed Design and Rendering for the Selected Option

Iteration 1

Iteration 2

Iteration 3

Iteration 4

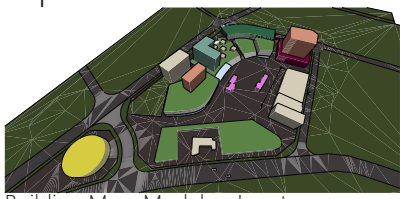
Iteration 5

Case 2 - Pearl Industrial Precinct Concept Design

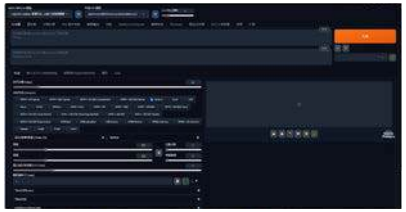
INTRODUCTION

The client is the owner of the pearl factory, who would like to invite an architect to provide a concept design for the new pearl industrial precinct so that she can convince the local government to purchase this piece of land. Within a short time, I need to provide different options for the clients to create the outline of the design.

Option 1



Building Mass Model as Input



Import into Stable Diffusion

PARAMETERS

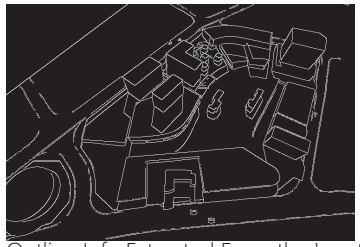
(aerial view:1.2), (plants on rooftop:1.2), masterpiece, 8K, high detail, bustling street, (plants on rooftop:1.2), light from inside the building, glass facade, commercial shop, art museum, Art precinct, hotel, ofPce building, residential building, Sky corridor, white, modernism, daytime, (central plaza:1.2), bright, timber look cladding roof,
Negative prompt: deformed iris, deformed pupils, semi-realistic, sketch, cartoon, drawing, animation, text, close up, cropped, out of frame, worst quality, low quality, jpeg artifacts, ugly, duplicate, morbid, mutilated, extra Pngers, mutated hands, poorly drawn hands, poorly drawn face, mutation, deformed, blurry, dehydrated, bad anatomy, bad proportions, extra limbs, cloned face, disPgured, gross proportions, malformed limbs, missing arms, missing legs, extra arms, extra legs, fused, water, lake, river,
Steps: 30, Sampler: Euler a, CFG scale: 7, Seed: 3457047777, Size: 2008x1224, Model hash: a91e112ceb, Model: Archi- 城市设计大模型_UrbanDesign_v6, Denoising strength: 0.25, Clip skip: 3, ENSD: 31337, ControlNet-0 Enabled: True, ControlNet-0 Module: depth, ControlNet-0 Model: control_depth [bda98948], ControlNet-0 Weight: 1, ControlNet-0 Guidance Start: 0, ControlNet-0 Guidance End: 1, Version: v1.5.1

ADDING PROMPT

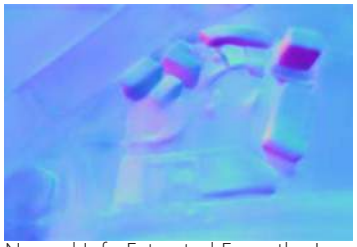
GENERATING

Generating Aerial View of Option 1

Depth Info Extracted From the Input



Outline Info Extracted From the Input



Normal Info Extracted From the Input

1. Streetscape Perspective

3. Central Park Perspective

3. Central Park Perspective

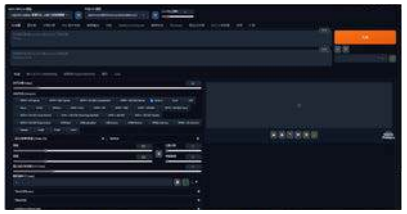
2. Entry Plaza Perspective

4. Sunken Garden Perspective

5. Exhibition Centre Perspective

Option 2

Building Mass Model as Input



Import into Stable Diffusion

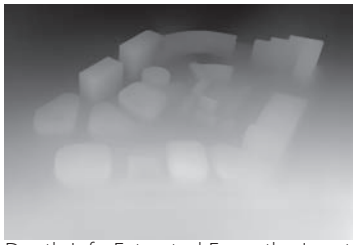
PARAMETERS

(aerial view1:2), realistic, high resolution, masterpiece, 8K, high detail, a lot of people, entrance plaza, entrance square, sunken garden, plants and trees, vegetations, bustling street, (plants on rooftop:1.2), light from inside the building, white pavement, ground, commercial shop, conference center, art museum, (art precinct:1.2), corridor under building, white, modernism, daytime, (timber cladding roof:1.2), (transparent glass facade:1.3), stone wall, (timber cladding wall:1.5)
Negative prompt: semi-realistic, cgi, 3d, render, sketch, cartoon, drawing, animation, text, close up, cropped, out of frame, worst quality, low quality, jpeg artifacts, ugly, duplicate, morbid, mutilated, deformed, blurry, dehydrated, bad anatomy, bad proportions, disÞgured, gross proportions, fused
Steps: 20, Sampler: DPM++ 2M Karras, CFG scale: 7, Seed: 2403039468, Size: 2048x1357, Model hash: a91e112ceb, Model: Archi- 城市设计大模型 _ UrbanDesign_v6, VAE hash: 63aeecb90f, VAE: vae-ft-mse-840000-ema-pruned.safetensors, Denoising strength: 0.55, Clip skip: 3, ControlNet 0: "Module: depth_midas, Model: control_v11f1p_sd15_depth [cfd03158], Weight: 1, Resize Mode: Crop and Resize, Low Vram: False, Processor Res: 1200, Guidance Start: 0, Guidance End: 1, Pixel Perfect: False, Control Mode: ControlNet is more important", Version: v1.6.0

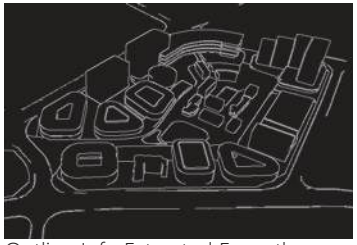
ADDING PROMPT

GENERATING

Generating Aerial View of Option 2



Depth Info Extracted From the Input



Outline Info Extracted From the

Normal Info Extracted From the Input

Streetscape Perspective

Central Park Perspective

Plaza Perspective

Garden Perspective

Perspective

Case 3 - Headquarter of Hainan Province Design and Research Institute Co. Ltd

INTRODUCTION

The client, Hainan Province Design and Research Institute Co. Ltd. is planning to building the new workplace for all architects and engineers. The new ofÞce building is located in a newly planned district where main road has been constructed but many piece of the land are vacant. Unlike previous projects, the architects has provided a couple of design options, which however are lack of details. By using AIGC workßow, I can add more building details to the design options and generate renders within a short period of time.

Design Option 1

Generated Outcome 1

Detailed renders to be combined with AIGC workßow

Design Option 2

Generated Outcome 2

Design Option 3

Generated Outcome 3

Final Outcome

Project 2 - Tanner Grove Townhouse Design and Documentation

Burton and Carter Architects
Melbourne, Victoria, Australia

Participated Project Content

Drafted construction drawings, Communicated with structural engineers during the process to integrate structural designs into construction drawings, Resolved conflicts between structural and architectural designs, Designed firewalls for townhouses, Created detailed drawings for specific parts and interior millwork, Produced standard construction drawings.

Living Area

Courtyard

Master Bedroom

Dinning Area

Master Bathroom

Kitchen

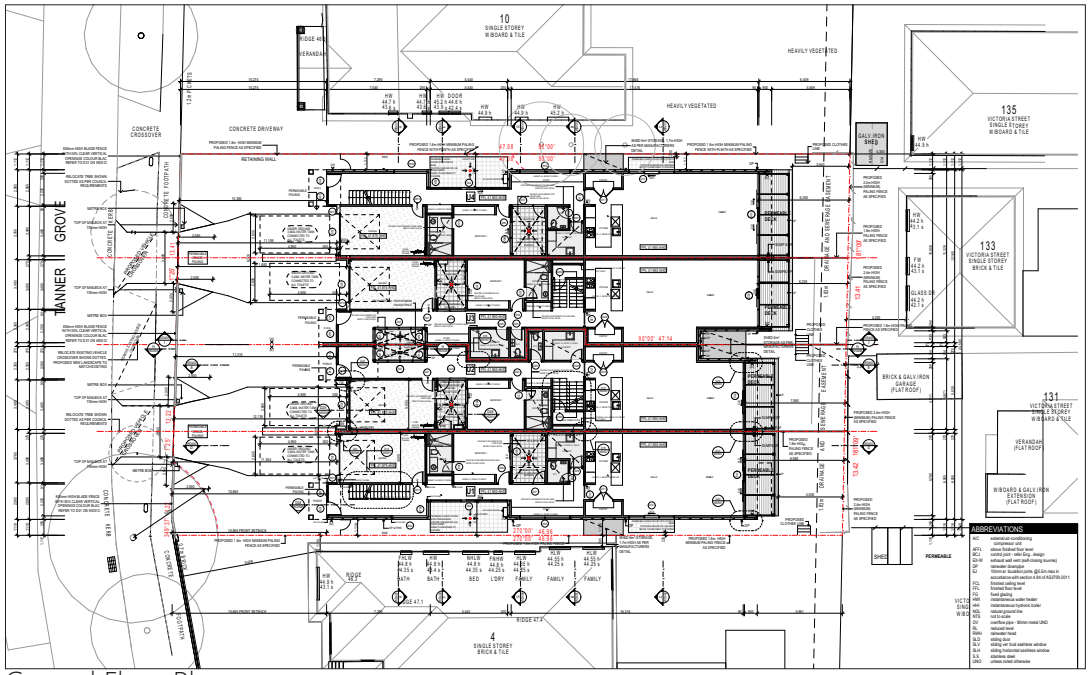
Bathroom

Introduction

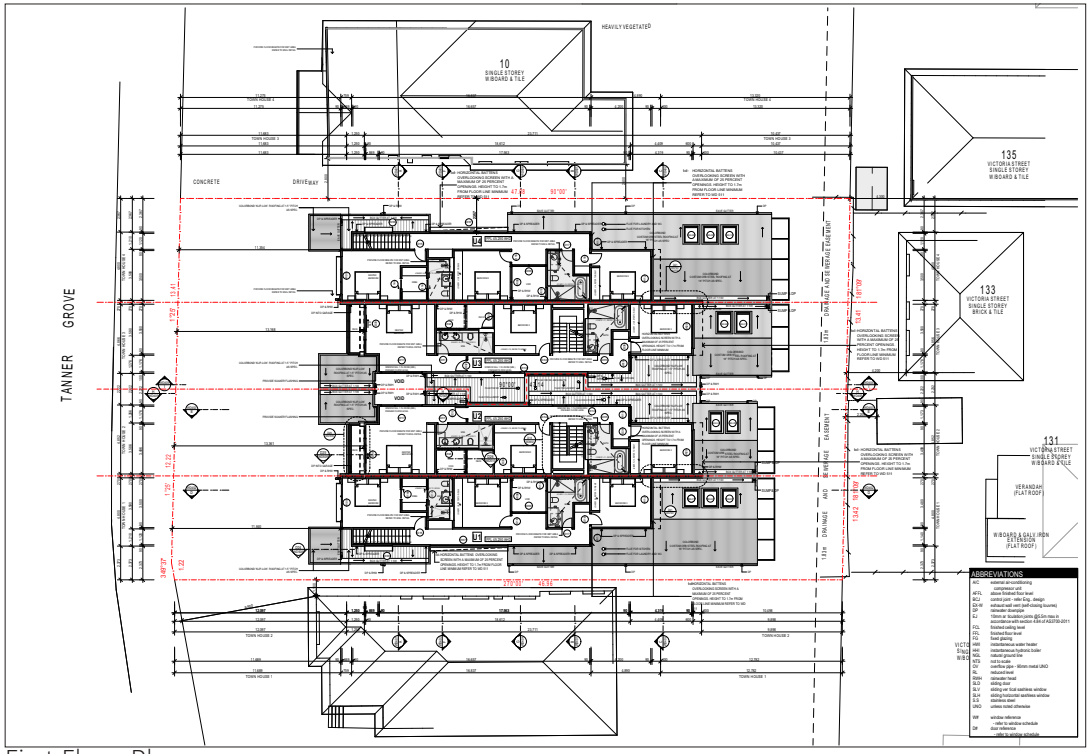
The project is located in a residential area in Melbourne's northern suburbs. The developer owns two rectangular plots, each measuring 13 meters by 47 meters, which were combined to accommodate the construction of four townhouses. The design adopts a modern style, prominently featuring gray Þnishes contrasted with wood veneers to create a striking interplay of warm and cool tones.

The interiors are characterized by the extensive use of matte off-white Þnishes and white-painted walls, complemented by wooden ßooring to create a cozy and inviting living environment. The living rooms are situated at the rear of the townhouses, with full-height ßoor-to-ceiling windows that blur the boundary between indoor and outdoor spaces.

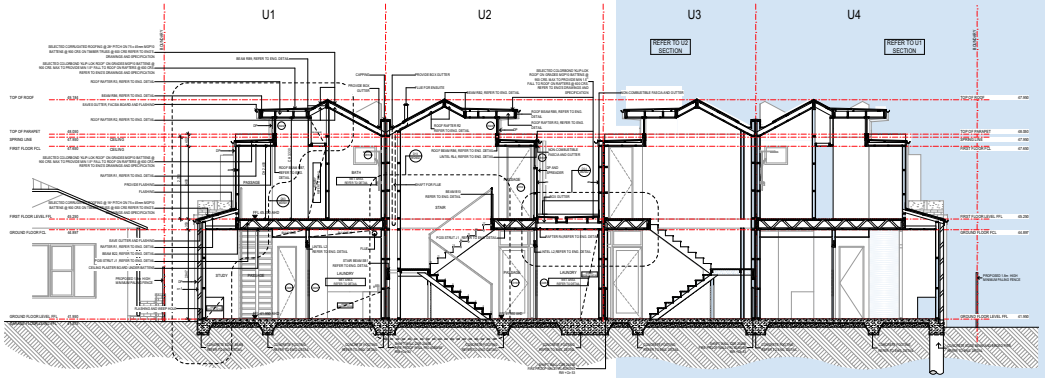
The structure consists of timber framing with suspended gypsum board panels inside, wooden ßooring, and limited areas of tiled surfaces. Exterior Þnishes include cement Þberboard, brick veneers, and textured stone paint. The roofs feature Klip-lok metal rooÞng for durability and aesthetic appeal.



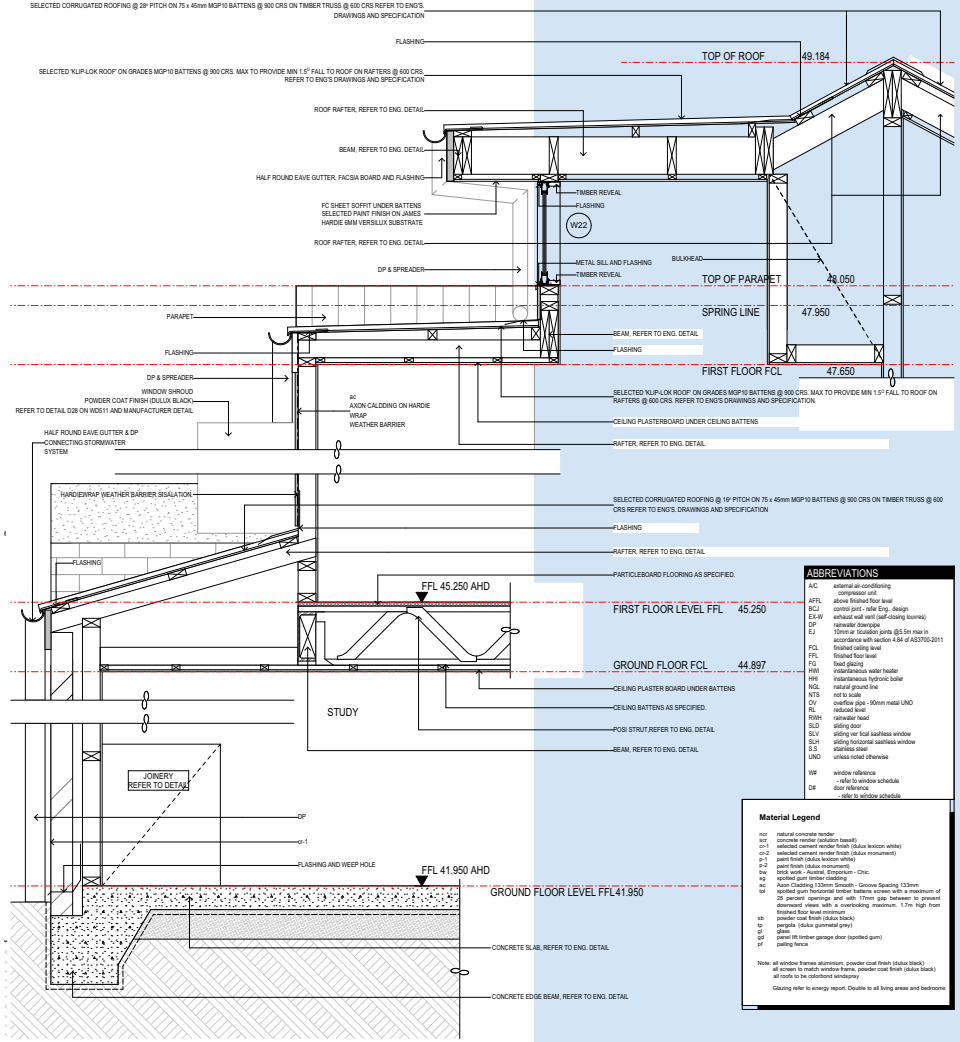
Ground Floor Plan



First Floor Plan



Section



Detail

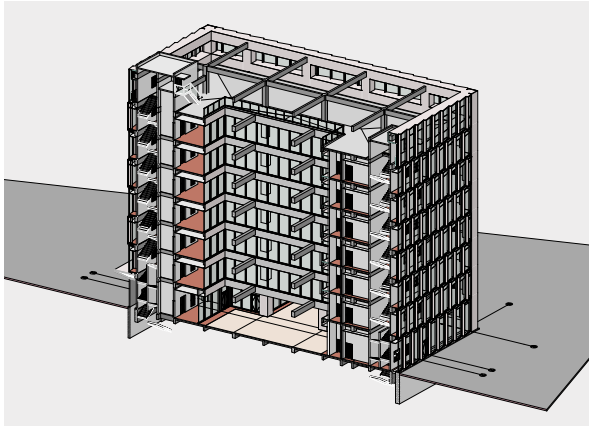
Project 3 - Commercial Complex - OfÞce Building #7

Modelling and Documentation

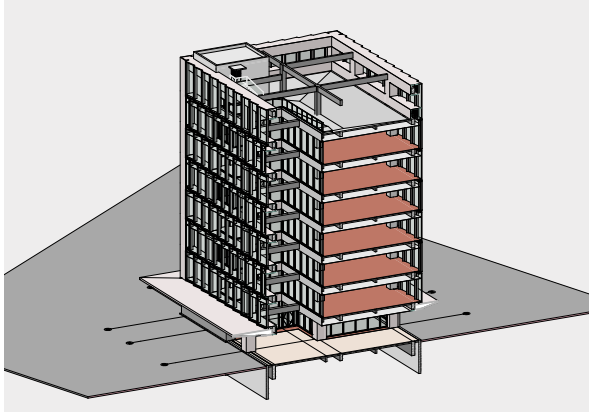
Hainan Province Design and Research Institute Co. Ltd

Haikou, Hainan, China

Streetscape Perspective

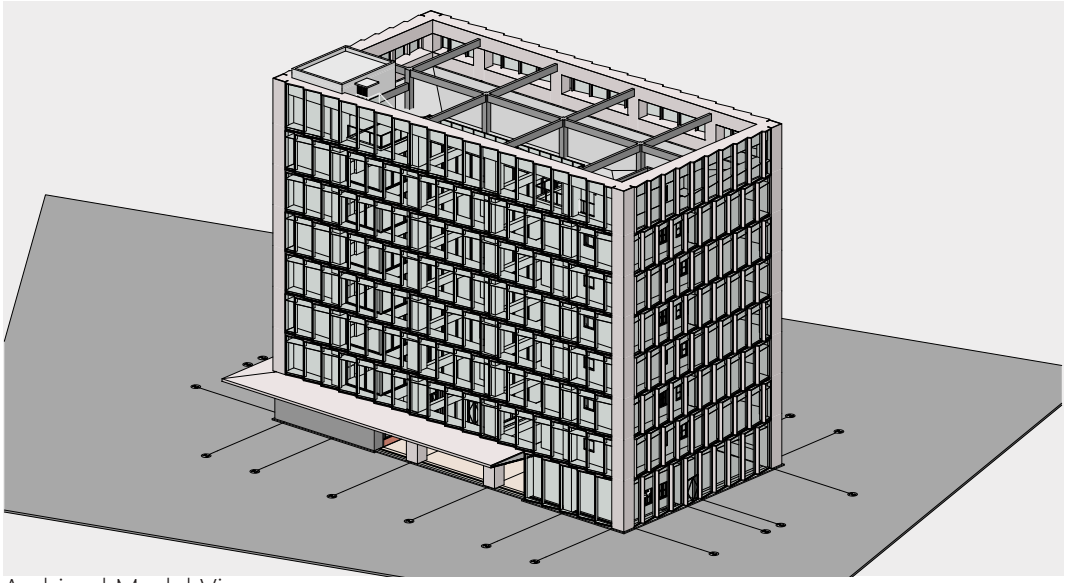


Sectional View in Archicad Model

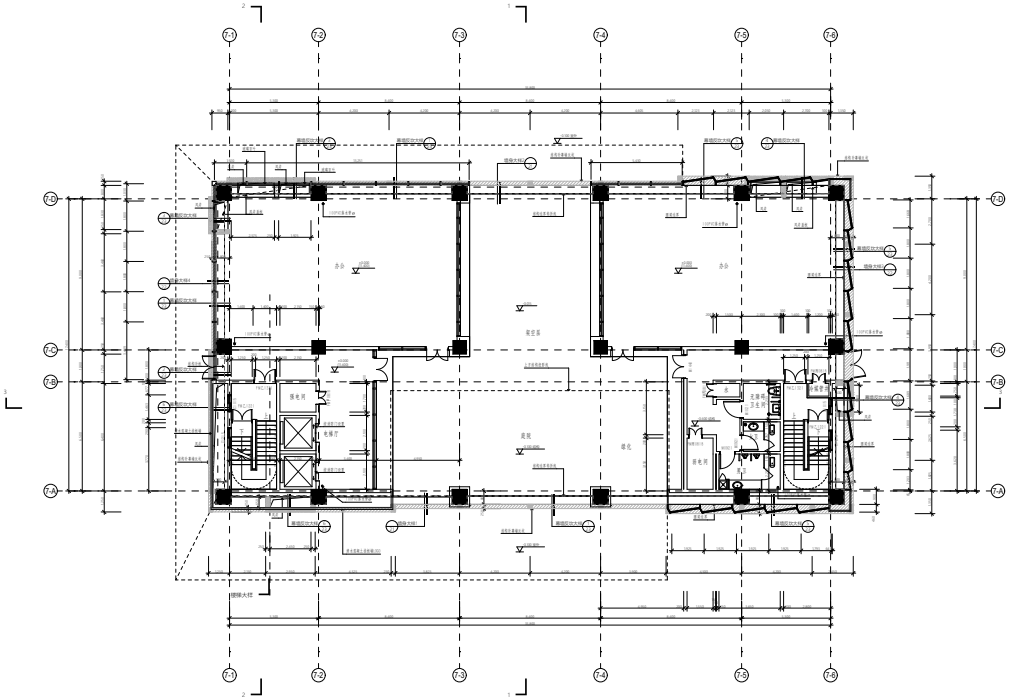


Sectional View in Archicad Model

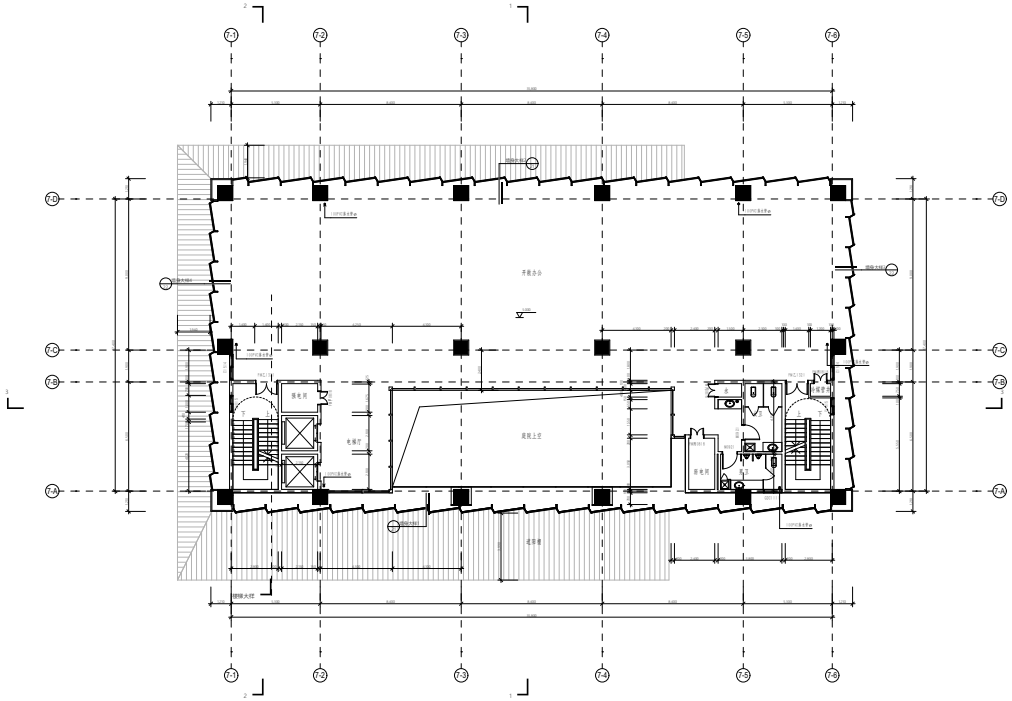
Entrance Perspective



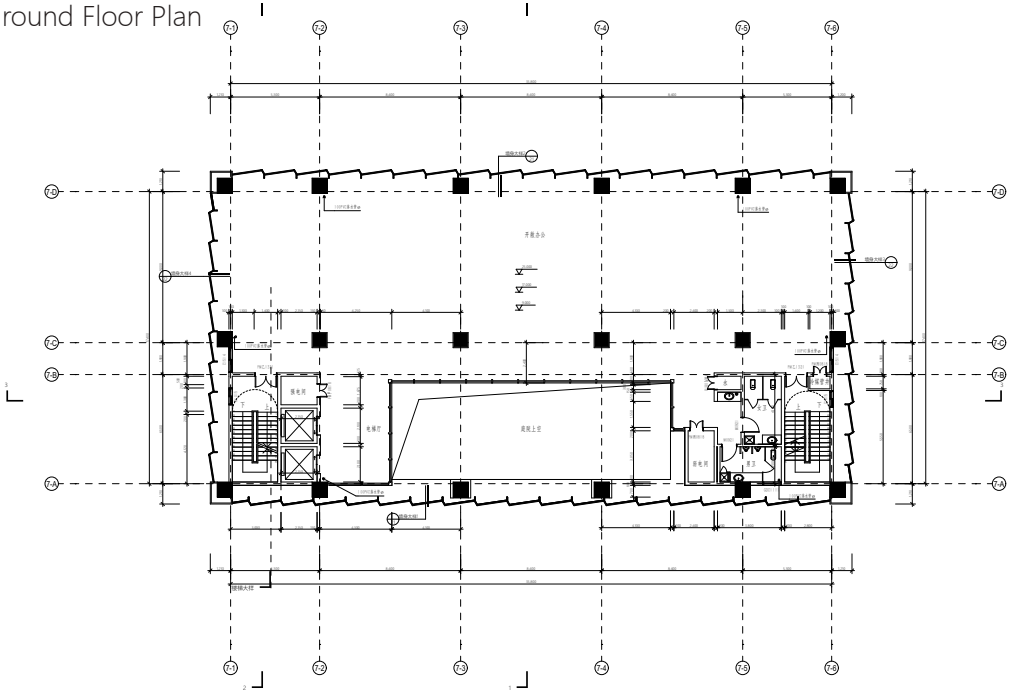
Archicad Model View



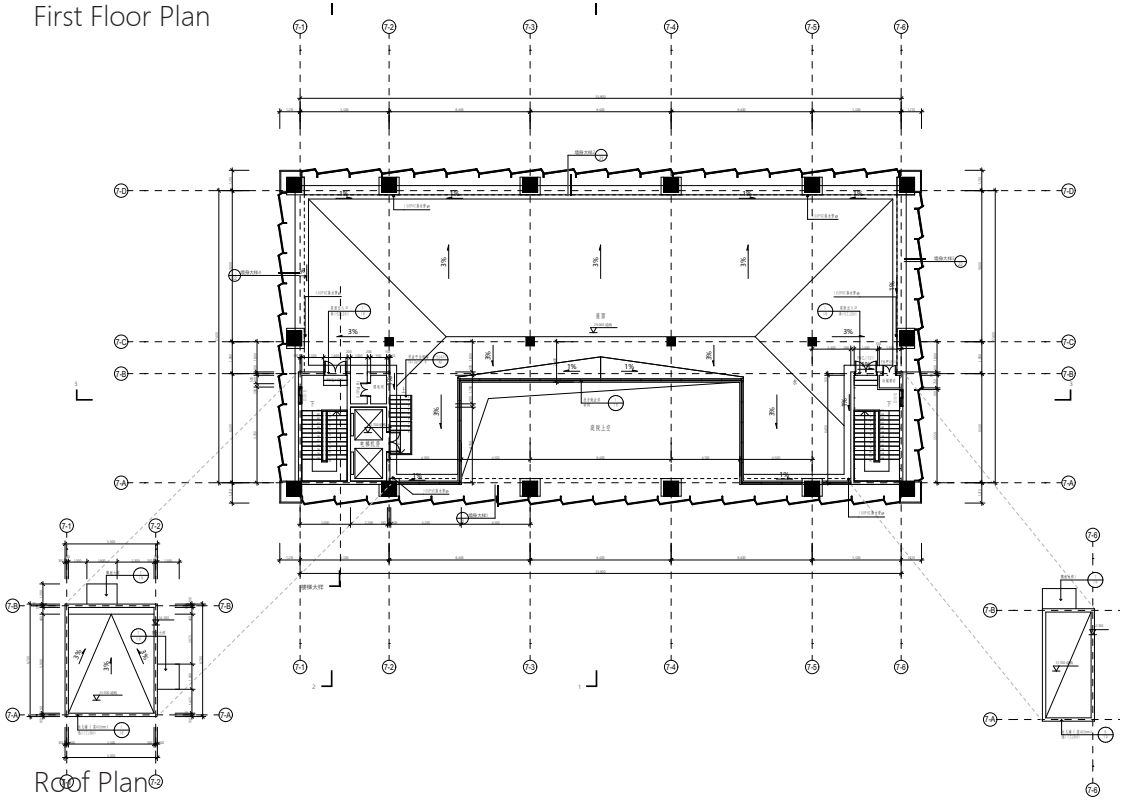
Ground Floor Plan



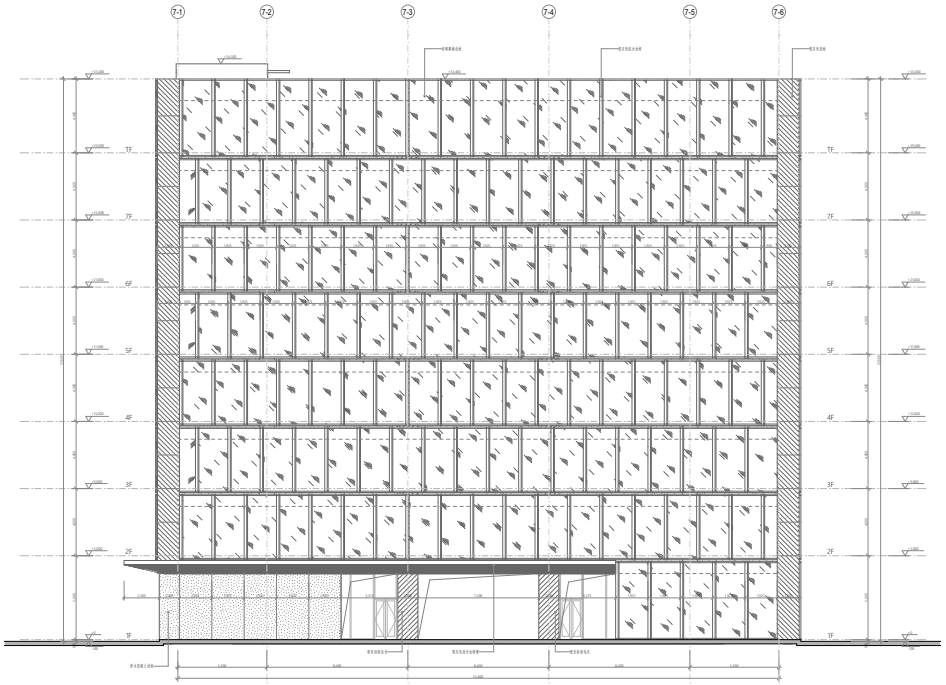
First Floor Plan



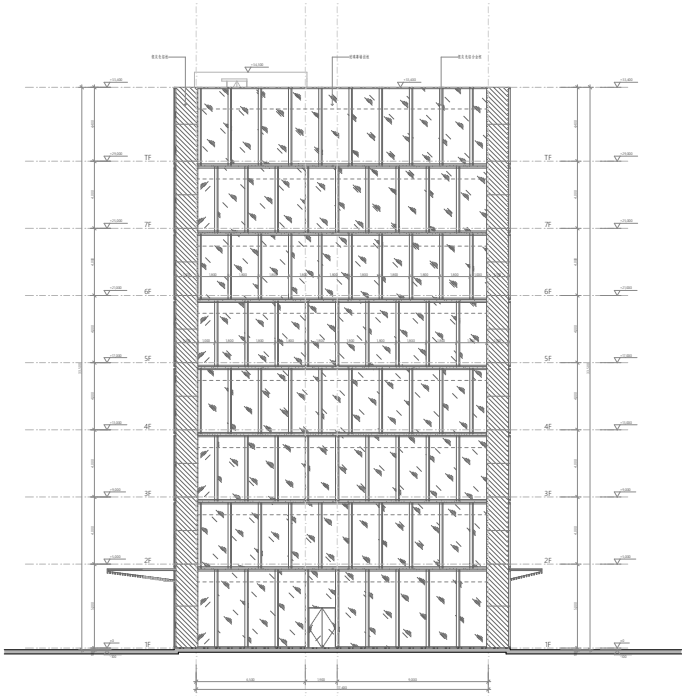
Typical Floor Plan



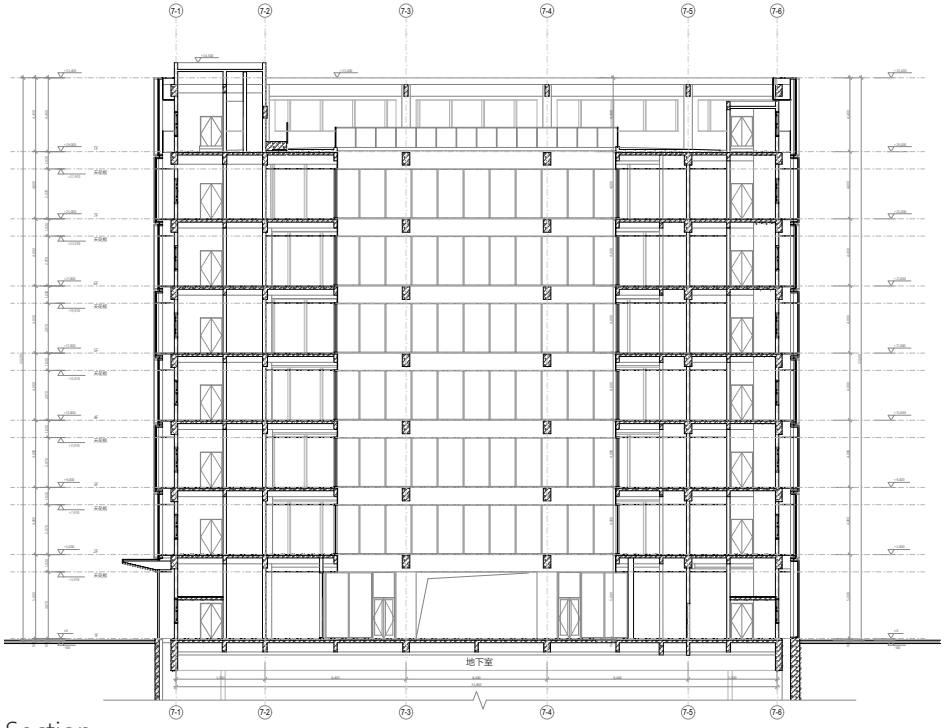
Roof Plan



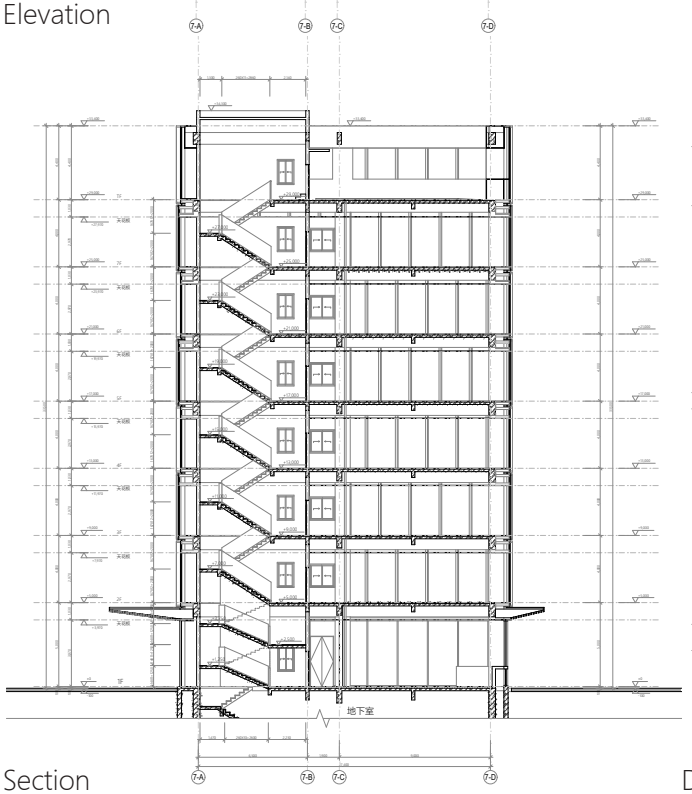
Elevation



Elevation



Section



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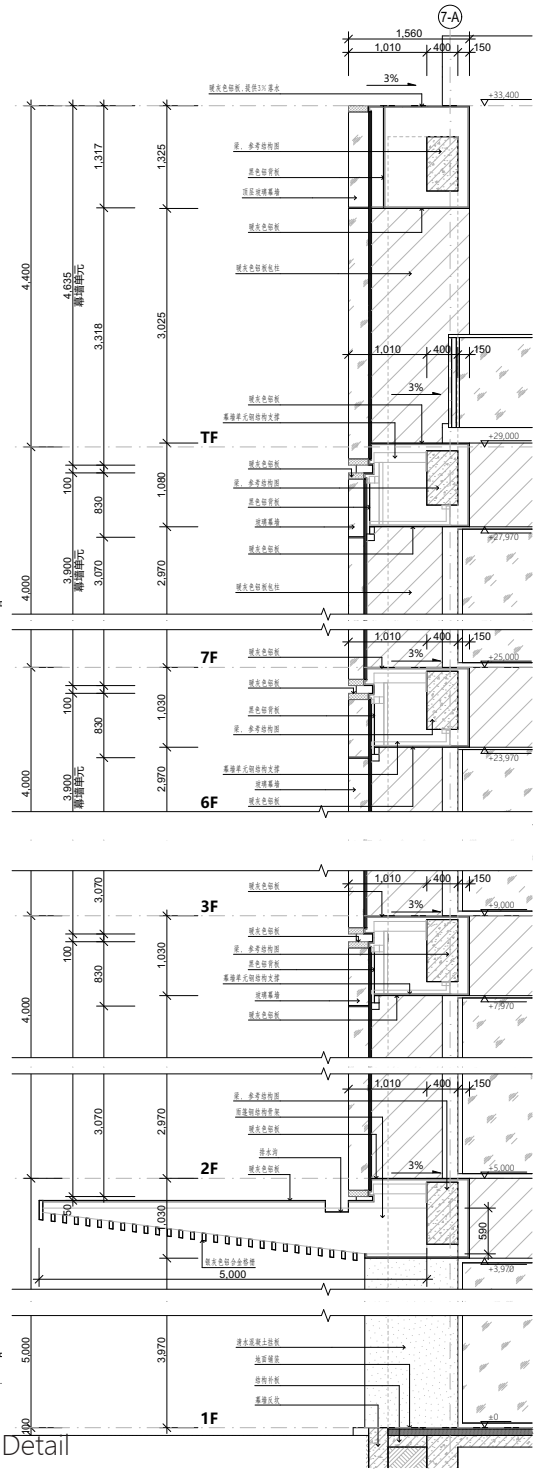


Detail

Project 4 - FENGJIAWAN FISHERIES GREEN DEVELOPMENT RESEARCH CENTER OF HAINAN UNIVERSITY

Sketch Design and Design Development
Hainan Province Design and Research Institute Co. Ltd
Haikou, Hainan, China

INTRODUCTION

The client, Hainan University, would like to construct a research and ofÞce building in Hainan Province. The scope of the work is a ofÞce building and two factories for research. The highlight of the ofÞce building is that it features a large open space on the top ßoor with trussing structure and a rectangular courtyard with a round auditorium. This would help improve the research environment for scientists and researchers.

Streetscape Perspective

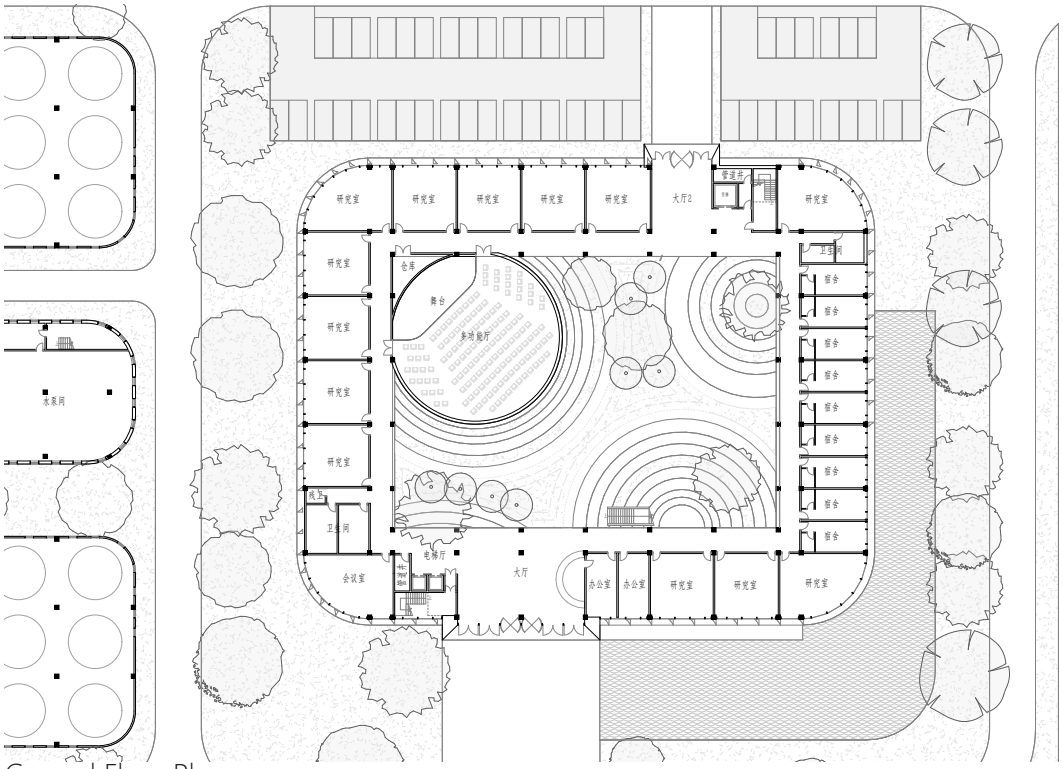
Streetscape Perspective

Streetscape Perspective

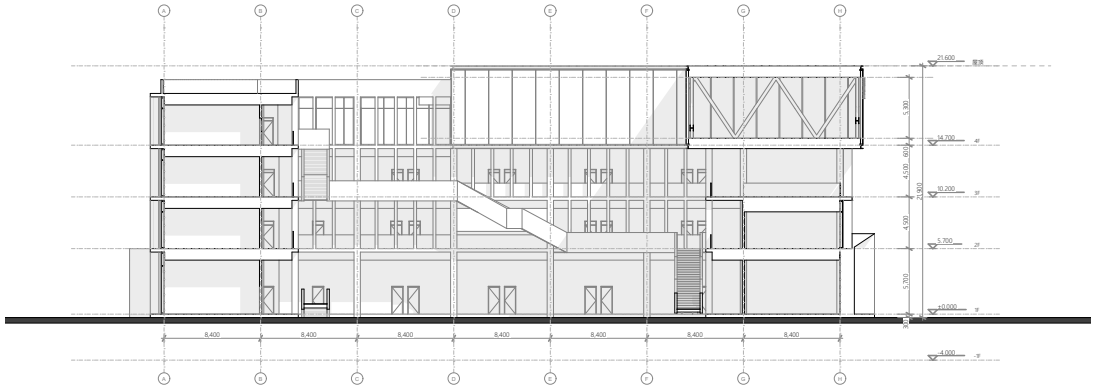
Courtyard Perspective

Courtyard Perspective

Streetscape Perspective



Ground Floor Plan



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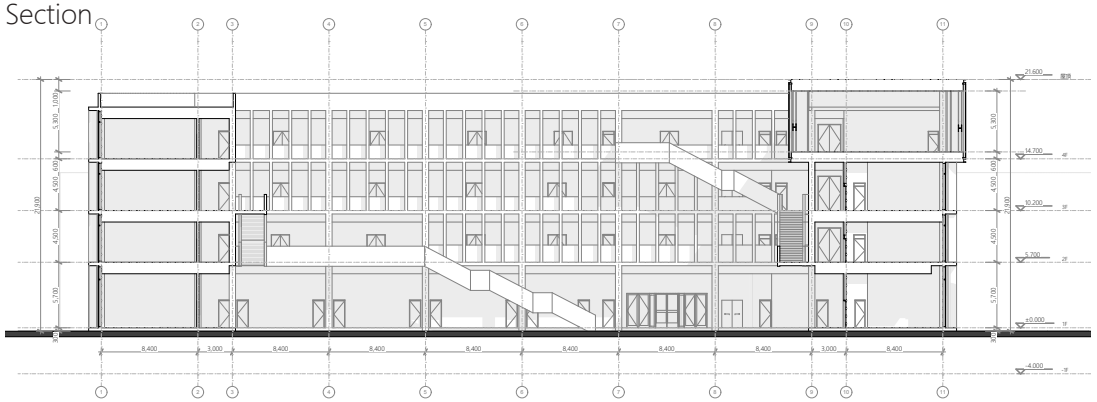

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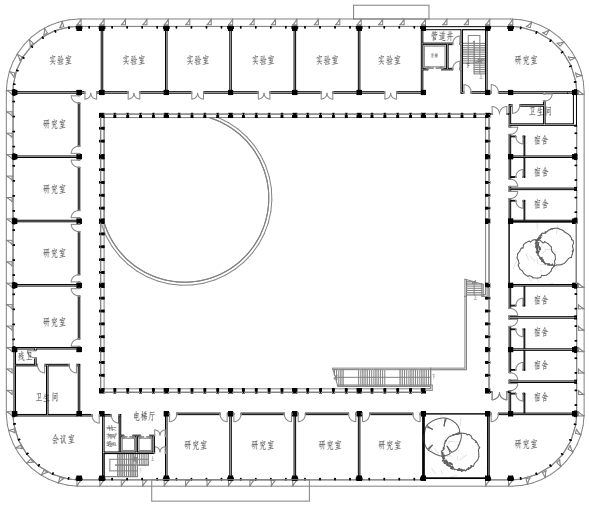
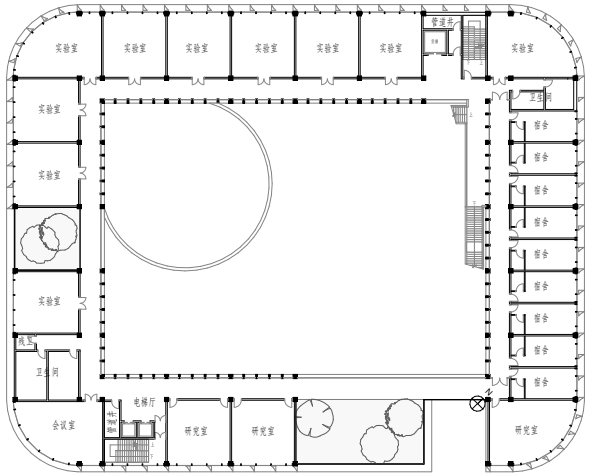
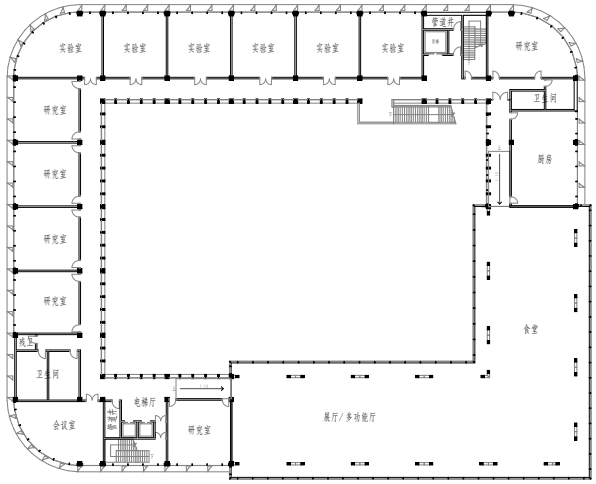


First Floor Plan



Second Floor Plan



Third Floor Plan

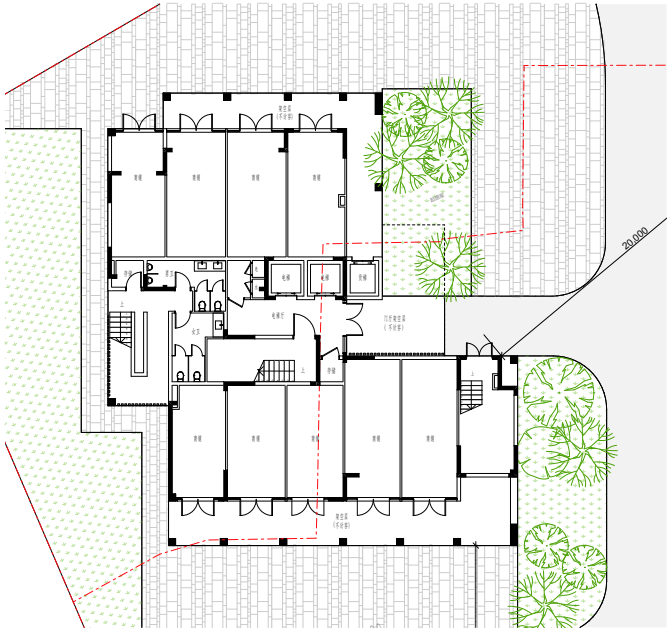
Project 5 - Residential Apartment for Baisha People Hospital

Sketch Design and Design Development
Hainan Province Design and Research Institute Co. Ltd
Haikou, Hainan, China

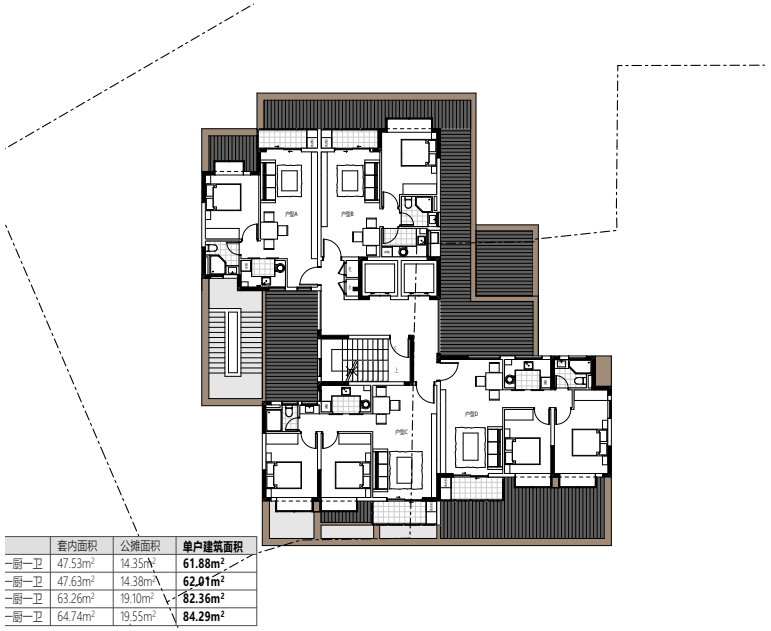
Streetscape Perspective

Streetscape Perspective

Streetscape Perspective

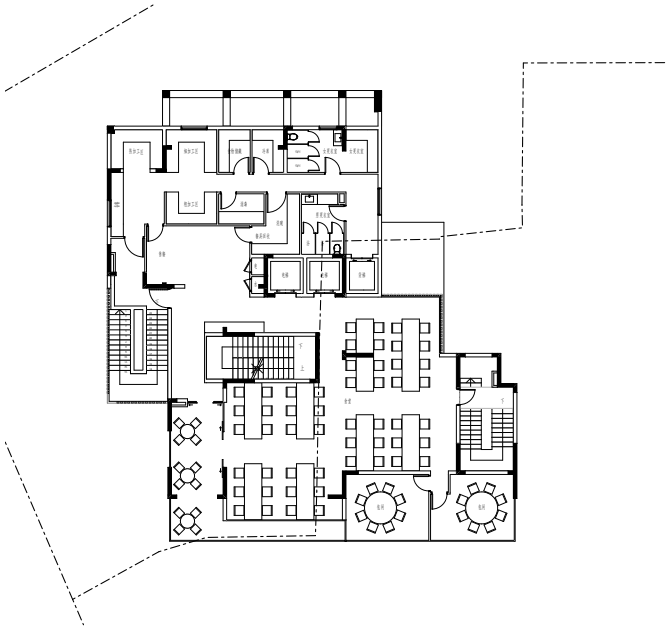


Ground Floor Plan



	套内面积	公摊面积	单户建筑面积
一厨一卫	47.53m²	14.35m²	**61.88m²**
一厨一卫	47.63m²	14.38m²	**62.01m²**
一厨一卫	63.26m²	19.10m²	**82.36m²**
一厨一卫	64.74m²	19.55m²	**84.29m²**

Typical Floor Plan



First Floor Plan

Elevation

NOTE: THE USE OF NATIVE OR DROUGHT-TOLERANT SPECIES FOR LANDSCAPED AREAS. WATERING WILL NOT BE REQUIRED AFTER AN INITIAL PERIOD WHEN PLANTS ARE GETTING ESTABLISHED. IF IRRIGATION IS REQUIRED, IT WILL BE CONNECTED TO RAINWATER TANKS

NOTE: CHARGED PIPES WILL NOT BE RUNNING UNDERNEATH THE BUILDING FOOTPRINT

NOTE: 4W/m² LIGHTING DENSITY IN THE DWELLINGS

NOTE: CONSTRUCTION WILL ACHIEVE 6.5 STAR AVERAGE ENERGY RATING FOR THE DEVELOPMENT

NOTE: PROVIDE DOUBLE GLAZING ON ALL HABITABLE ROOMS

NOTE: FOR ALL SIX UNITS,:
PROVIDE 4 WELS STAR RATING TOILETS.
PROVIDE 5 WELS STAR RATING TAPS IN ALL BATHROOM AND KITCHEN.
PROVIDE 4 STAR WELS STAR RATING SHOWERHEAD WITH AERATION DEVICE.
PROVIDE 5 STAR WELS STAR RATING DISHWASHERS.

FLOOR AREA - U1				
1F	45.05	sqm	4.85	sqs
2F	58.22	sqm	6.26	sqs
3F	N/A		N/A	
TOTAL	103.27	sqm	11.11	sqs
PORCH	14.83	sqm	1.60	sqs
BALCONY	12.82	sqm	1.38	sqs
GARAGE	22.46	sqm	2.42	sqs
FLOOR AREA - U2				
1F	46.67	sqm	5.02	sqs
2F	55.90	sqm	6.01	sqs
3F	N/A		N/A	
TOTAL	102.57	sqm	11.04	sqs
PORCH	1.45	sqm	0.16	sqs
BALCONY	8.00	sqm	0.86	sqs
GARAGE	22.46	sqm	2.42	sqs
FLOOR AREA - U3				
1F	70.01	sqm	7.53	sqs
2F	65.29	sqm	7.03	sqs
3F	43.53	sqm	4.68	sqs
TOTAL	178.83	sqm	19.24	sqs
PORCH	1.45	sqm	0.16	sqs
BALCONY	8.93	sqm	0.96	sqs
GARAGE	37.39	sqm	4.02	sqs
FLOOR AREA - U4				
1F	70.01	sqm	7.53	sqs
2F	65.29	sqm	7.03	sqs
3F	43.53	sqm	4.68	sqs
TOTAL	178.83	sqm	19.24	sqs
PORCH	1.45	sqm	0.16	sqs
BALCONY	9.10	sqm	0.98	sqs
GARAGE	37.39	sqm	4.02	sqs
FLOOR AREA - U5				
1F	46.67	sqm	5.02	sqs
2F	55.90	sqm	6.01	sqs
3F	N/A		N/A	
TOTAL	102.57	sqm	11.04	sqs
PORCH	1.45	sqm	0.16	sqs
BALCONY	8.00	sqm	0.86	sqs
GARAGE	22.46	sqm	2.42	sqs
FLOOR AREA - U6				
1F	46.67	sqm	5.02	sqs
2F	55.90	sqm	6.01	sqs
3F	N/A		N/A	
TOTAL	102.57	sqm	11.04	sqs
PORCH	1.45	sqm	0.16	sqs
BALCONY	8.00	sqm	0.86	sqs
GARAGE	22.46	sqm	2.42	sqs

AREA UPDATED ON 06/09/2023

SITE AREAS

SITE AREA	:	893.5	Sqm	
SITE COVERAGE	:	474	Sqm	53.05 %
HARD SURFACES COVERAGE	:	644	Sqm	72.08 %
PERMEABLE AREA	:	249.5	Sqm	27.92 %

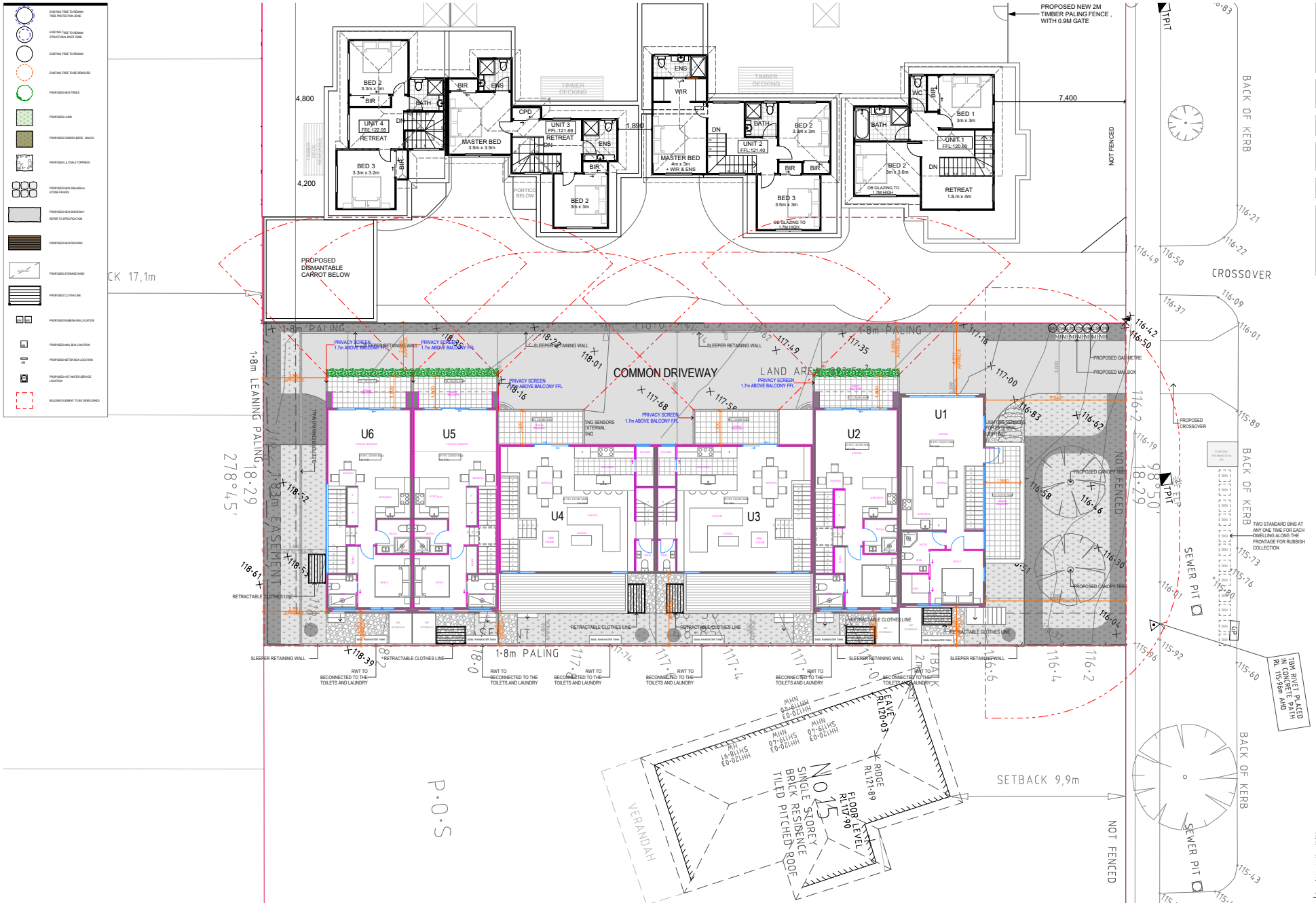
GARDEN AREAS

AREAS WITH A MINIMUM DIMENSION OF 1 METRE OPEN TO THE SKY	228	Sqm	25.52 %

Project 6 - Multiunit Development - 17 Baker Street, Lilydale, VIC, 3138

Town Planning Application for Modular Construction Approach

Rationale Design



NOTE: THE USE OF NATIVE OR DROUGHT-TOLERANT SPECIES FOR LANDSCAPED AREAS. WATERING WILL NOT BE REQUIRED AFTER AN INITIAL PERIOD WHEN PLANTS ARE GETTING ESTABLISHED. IF IRRIGATION IS REQUIRED, IT WILL BE CONNECTED TO RAINWATER TANKS

NOTE: CHARGED PIPES WILL NOT BE RUNNING UNDERNEATH THE BUILDING FOOTPRINT

NOTE: 4W/m² LIGHTING DENSITY IN THE DWELLINGS

NOTE: CONSTRUCTION WILL ACHIEVE 6.5 STAR AVERAGE ENERGY RATING FOR THE DEVELOPMENT

NOTE: PROVIDE DOUBLE GLAZING ON ALL HABITABLE ROOMS

NOTE: FOR ALL SIX UNITS,:
PROVIDE 4 WELS STAR RATING TOILETS.
PROVIDE 5 WELS STAR RATING TAPS IN ALL BATHROOM AND KITCHEN.
PROVIDE 4 STAR WELS STAR RATING SHOWERHEAD WITH AERATION DEVICE.
PROVIDE 5 STAR WELS STAR RATING DISHWASHERS.

FLOOR AREA - U1				
1F	45.05	sqm	4.85	sqs
2F	58.22	sqm	6.26	sqs
3F	N/A		N/A	
TOTAL	103.27	sqm	11.11	sqs
PORCH	14.83	sqm	1.60	sqs
BALCONY	12.82	sqm	1.38	sqs
GARAGE	22.46	sqm	2.42	sqs
FLOOR AREA - U2				
1F	46.67	sqm	5.02	sqs
2F	55.90	sqm	6.01	sqs
3F	N/A		N/A	
TOTAL	102.57	sqm	11.04	sqs
PORCH	1.45	sqm	0.16	sqs
BALCONY	8.00	sqm	0.86	sqs
GARAGE	22.46	sqm	2.42	sqs
FLOOR AREA - U3				
1F	70.01	sqm	7.53	sqs
2F	65.29	sqm	7.03	sqs
3F	43.53	sqm	4.68	sqs
TOTAL	178.83	sqm	19.24	sqs
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FLOOR AREA - U4				
1F	70.01	sqm	7.53	sqs
2F	65.29	sqm	7.03	sqs
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TOTAL	178.83	sqm	19.24	sqs
PORCH	1.45	sqm	0.16	sqs
BALCONY	9.10	sqm	0.98	sqs
GARAGE	37.39	sqm	4.02	sqs
FLOOR AREA - U5				
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2F	55.90	sqm	6.01	sqs
3F	N/A		N/A	
TOTAL	102.57	sqm	11.04	sqs
PORCH	1.45	sqm	0.16	sqs
BALCONY	8.00	sqm	0.86	sqs
GARAGE	22.46	sqm	2.42	sqs
FLOOR AREA - U6				
1F	46.67	sqm	5.02	sqs
2F	55.90	sqm	6.01	sqs
3F	N/A		N/A	
TOTAL	102.57	sqm	11.04	sqs
PORCH	1.45	sqm	0.16	sqs
BALCONY	8.00	sqm	0.86	sqs
GARAGE	22.46	sqm	2.42	sqs

AREA UPDATED ON 06/09/2023

SITE AREAS				
SITE AREA	:	893.5	Sqm	
SITE COVERAGE	:	474	Sqm	53.05 %
HARD SURFACES COVERAGE	:	644	Sqm	72.08 %
PERMEABLE AREA	:	249.5	Sqm	27.92 %

GARDEN AREAS

INTRODUCTION

The client would like to construct this 6-unit townhouse in a modular construction approach. The width of the modular comes in 2.44m, 4.88m and 7.32m and the length is not restrained. Thus, the typical layout is that the single carpark and bedroom are located in the ground ßoor, and Living, kitchen, Dining, and secondary bedroom are located in the Þrst ßoor. This layout would create a cantilevered building mass above the driveway. I proposed a tube expression for the cantilevered portion and believe that this would help increase the visual interest to the streetscape.

EXISTING TREE TO REMAIN TREE PROTECTION ZONE

EXISTING TREE TO REMAIN STRUCTURAL ROOT ZONE

EXISTING TREE TO REMAIN

EXISTING TREE TO BE REMOVED

PROPOSED NEW TREES

PROPOSED LAWN

PROPOSED GARDEN BEDS - MULCH

PROPOSED LIL YOALE TOPPINGS

PROPOSED NEW 400x400mm STONE PAVERS

PROPOSED NEW DRIVEWAY REFER TO SPECIFICATION

PROPOSED NEW DECKING

PROPOSED STORAGE SHED

PROPOSED CLOTHS LINE

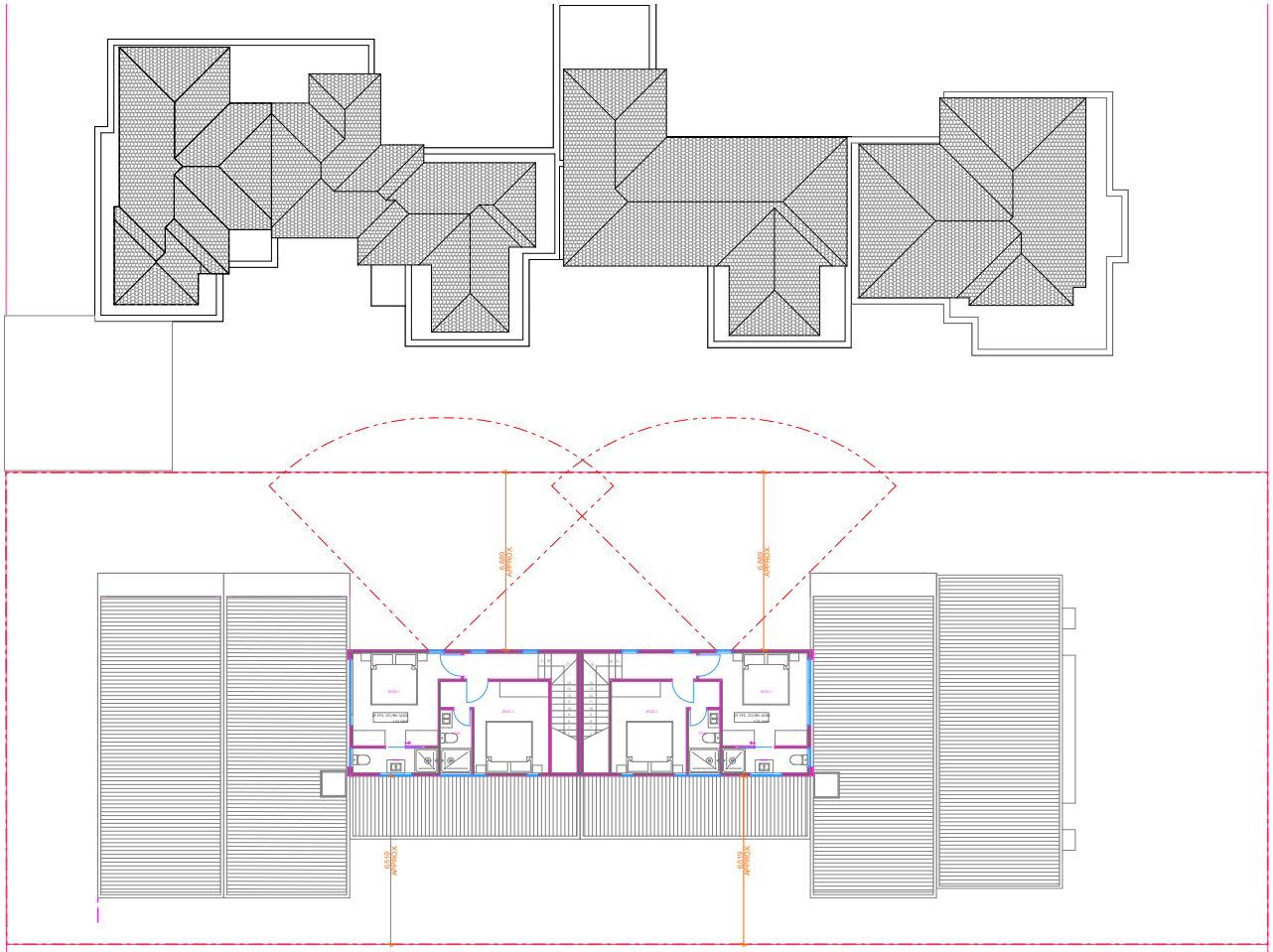
PROPOSED RUBBISH BIN LOCATION

PROPOSED MAIL BOX LOCATION

PROPOSED METER BOX LOCATION

PROPOSED HOT WATER SERVICE LOCATION

BUILDING ELEMENT TO BE DEMOLISHED



NOTE: THE USE OF NATIVE OR DROUGHT-TOLERANT SPECIES FOR LANDSCAPED AREAS. WATERING WILL NOT BE REQUIRED AFTER AN INITIAL PERIOD WHEN PLANTS ARE GETTING ESTABLISHED. IF IRRIGATION IS REQUIRED, IT WILL BE CONNECTED TO RAINWATER TANKS

NOTE: CHARGED PIPES WILL NOT BE RUNNING UNDERNEATH THE BUILDING FOOTPRINT

NOTE: 4W/m² LIGHTING DENSITY IN THE DWELLINGS

NOTE: CONSTRUCTION WILL ACHIEVE 6.5 STAR AVERAGE ENERGY RATING FOR THE DEVELOPMENT

NOTE: PROVIDE DOUBLE GLAZING ON ALL HABITABLE ROOMS

NOTE: FOR ALL SIX UNITS,:
PROVIDE 4 WELS STAR RATING TOILETS.
PROVIDE 5 WELS STAR RATING TAPS IN ALL BATHROOM AND KITCHEN.
PROVIDE 4 STAR WELS STAR RATING SHOWERHEAD WITH AERATION DEVICE.
PROVIDE 5 STAR WELS STAR RATING DISHWASHERS.

FLOOR AREA - U1				
1F	45.05	sqm	4.85	sqs
2F	58.22	sqm	6.26	sqs
3F	N/A		N/A	
TOTAL	103.27	sqm	11.11	sqs
PORCH	14.83	sqm	1.60	sqs
BALCONY	12.82	sqm	1.38	sqs
GARAGE	22.46	sqm	2.42	sqs
FLOOR AREA - U2				
1F	46.67	sqm	5.02	sqs
2F	55.90	sqm	6.01	sqs
3F	N/A		N/A	
TOTAL	102.57	sqm	11.04	sqs
PORCH	1.45	sqm	0.16	sqs
BALCONY	8.00	sqm	0.86	sqs
GARAGE	22.46	sqm	2.42	sqs
FLOOR AREA - U3				
1F	70.01	sqm	7.53	sqs
2F	65.29	sqm	7.03	sqs
3F	43.53	sqm	4.68	sqs
TOTAL	178.83	sqm	19.24	sqs
PORCH	1.45	sqm	0.16	sqs
BALCONY	8.93	sqm	0.96	sqs
GARAGE	37.39	sqm	4.02	sqs
FLOOR AREA - U4				
1F	70.01	sqm	7.53	sqs
2F	65.29	sqm	7.03	sqs
3F	43.53	sqm	4.68	sqs
TOTAL	178.83	sqm	19.24	sqs
PORCH	1.45	sqm	0.16	sqs
BALCONY	9.10	sqm	0.98	sqs
GARAGE	37.39	sqm	4.02	sqs
FLOOR AREA - U5				
1F	46.67	sqm	5.02	sqs
2F	55.90	sqm	6.01	sqs
3F	N/A		N/A	
TOTAL	102.57	sqm	11.04	sqs
PORCH	1.45	sqm	0.16	sqs
BALCONY	8.00	sqm	0.86	sqs
GARAGE	22.46	sqm	2.42	sqs
FLOOR AREA - U6				
1F	46.67	sqm	5.02	sqs
2F	55.90	sqm	6.01	sqs
3F	N/A		N/A	
TOTAL	102.57	sqm	11.04	sqs
PORCH	1.45	sqm	0.16	sqs
BALCONY	8.00	sqm	0.86	sqs
GARAGE	22.46	sqm	2.42	sqs

AREA UPDATED ON 06/09/2023

SITE AREAS

SITE AREA	:	893.5	Sqm	
SITE COVERAGE	:	474	Sqm	53.05 %
HARD SURFACES COVERAGE	:	644	Sqm	72.08 %
PERMEABLE AREA	:	249.5	Sqm	27.92 %

GARDEN AREAS

AREAS WITH A MINIMUM DIMENSION OF 1 METRE OPEN TO THE SKY	228	Sqm	25.52 %

SECOND FLOOR PLAN
1:100

TOWN PLANNING

N

RATIONALE DESIGN

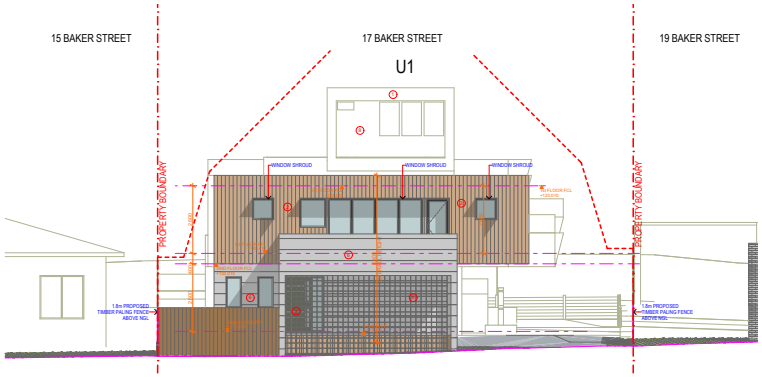
PROJECT : 17 BAKER STREET, LILYDALE, VIC, 3140
CLIENT : JJS ASSET MANAGEMENT PTY LTD
DRAWING TITLE : PROPOSED SECOND FLOOR
SCALE : 1:100
PLOT DATE: 2023/9/26
DRAWN BY : JL
CHECKED : RM
DRAWING No : TP07
REVISIONS : -
JOB No : 2102

REVISION

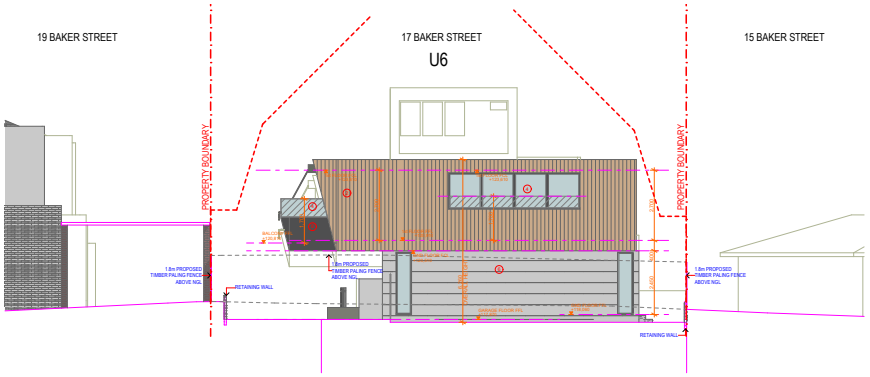
NO.	DESCRIPTION	DATE
-	-	-

Robert Morgan
Architect & Arch. MA
ABN 37 949 175 379
20 Beaming Street
Balaclava, Vic. 3183
Mobile: 0417 224 416
Email: info@rationaldesign.com.au
www.rationaldesign.com.au

PLOT PAGE 1 OF 1 PAGES



NORTH ELEVATION
1:100



SOUTH ELEVATION
1:100

NOTE: THE USE OF NATIVE OR DROUGHT-TOLERANT SPECIES FOR LANDSCAPED AREAS, WATERING WILL NOT BE REQUIRED AFTER AN INITIAL PERIOD WHEN PLANTS ARE GETTING ESTABLISHED. IF IRRIGATION IS REQUIRED, IT WILL BE CONNECTED TO RAINWATER TANKS

NOTE: CHARGED PIPES WILL NOT BE RUNNING UNDERNEATH THE BUILDING FOOTPRINT

NOTE: 4W/m² LIGHTING DENSITY IN THE DWELLINGS

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NOTE: FOR ALL SIX UNITS,:
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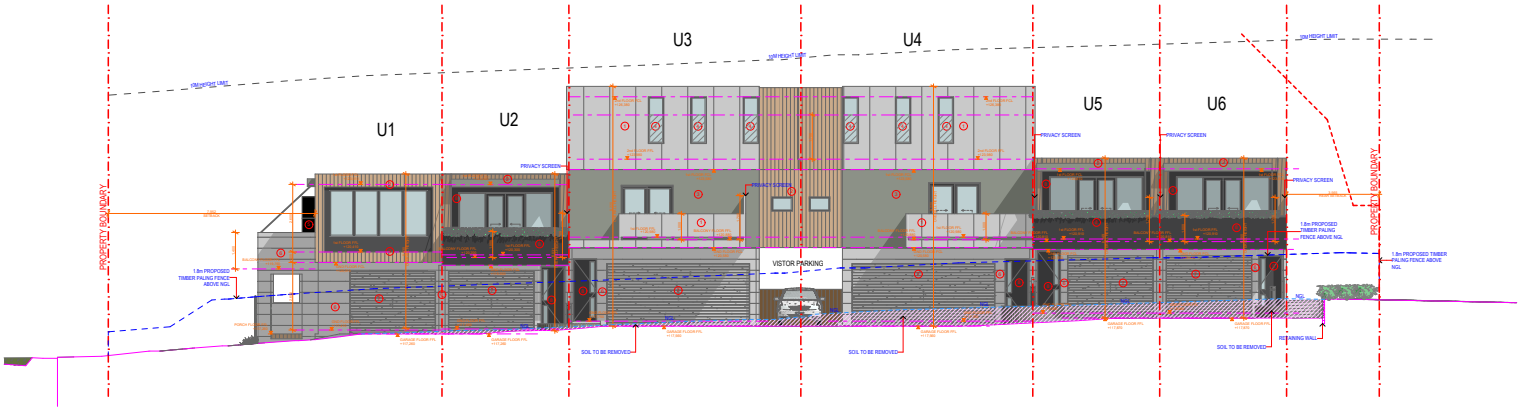
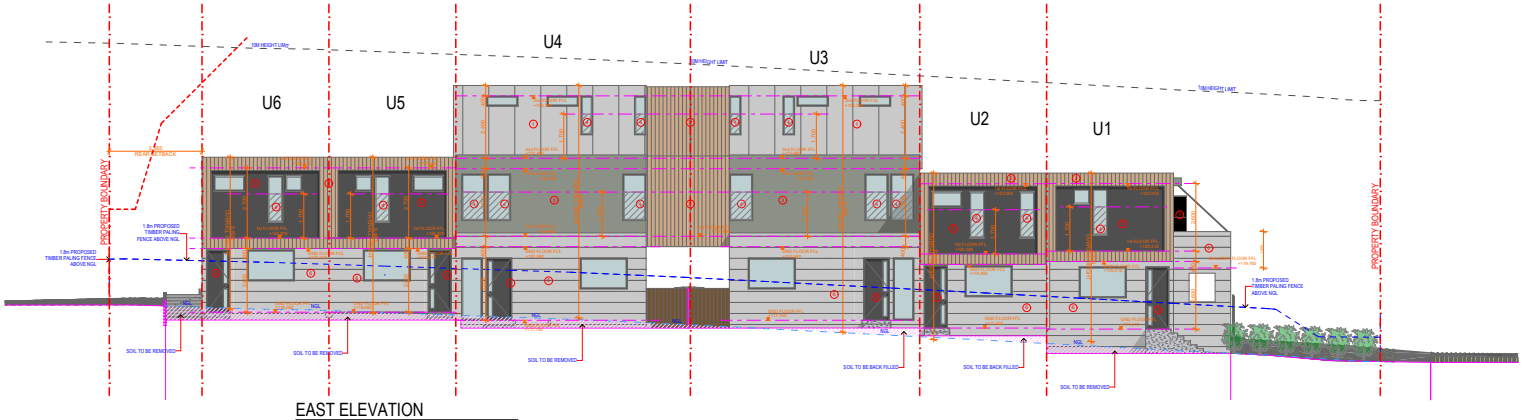
PROVIDE 5 STAR WELS STAR RATING DISHWASHERS.

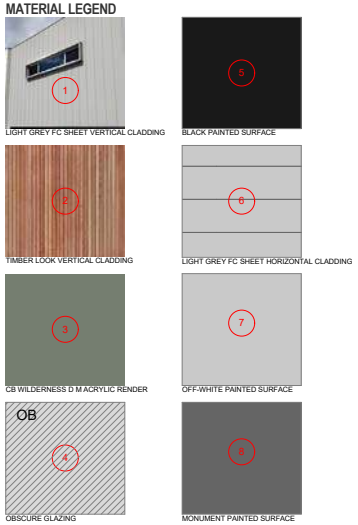


WEST ELEVATION
1:100



EAST ELEVATION
1:100

MATERIAL LEGEND



TOWN PLANNING

RATIONALE DESIGN

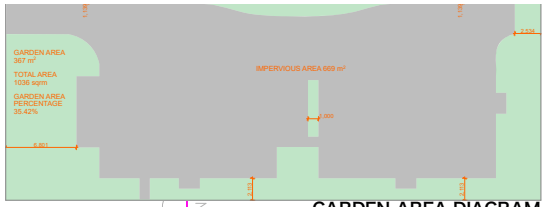
PROJECT : 17 BAKER STREET, LILYDALE, VIC, 3140
CLIENT : JJS ASSET MANAGEMENT PTY LTD
DRAWING TITLE : PROPOSED ELEVATION
SCALE : 1:100, 1:20
DRAWN BY : JL
CHECKED : RM
PLOT DATE: 2023/9/26
DRAWING No : TP09
REVISIONS : -
JOB No : 2102

REVISION

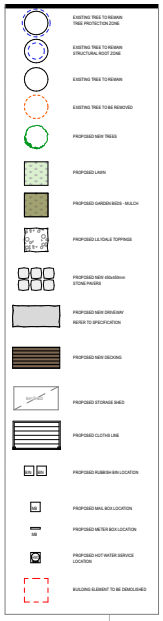
NO.	DESCRIPTION	DATE
-	-	-

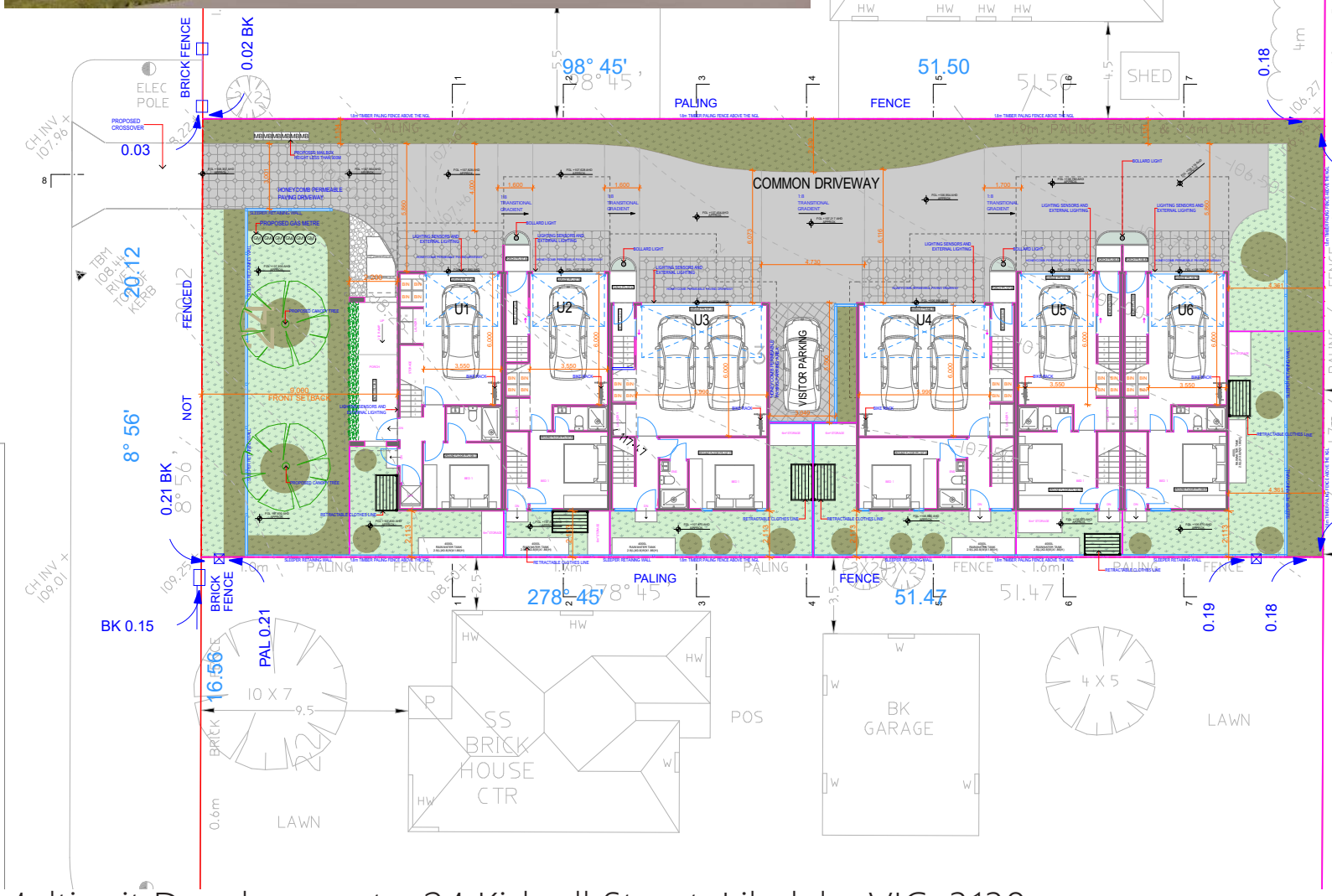
Robert Morgan
Architect B.Arch AIA
ABN 37 949 175 379
20 Boonwing Street
Balaclava, Vic 3183
Mobile: 0417 124 416
Email: rdf@rationale-pty.com.au

RDF PLAN A3 B DRAWN



GARDEN AREA DIAGRAM





AREA UPDATED ON 14/09/2023				
FLOOR AREA - U1				
1F	54.00	sqm	5.81	sqs
2F	65.00	sqm	6.99	sqs
TOTAL	119.00	sqm	12.80	sqs
PORCH	12.00	sqm	1.29	sqs
BALCONY	13.00	sqm	1.40	sqs
GARAGE	21.00	sqm	2.26	sqs
FLOOR AREA - U2				
1F	54.00	sqm	5.81	sqs
2F	65.00	sqm	6.99	sqs
TOTAL	119.00	sqm	12.80	sqs
PORCH	1.30	sqm	0.14	sqs
BALCONY	8.00	sqm	0.86	sqs
GARAGE	21.00	sqm	2.26	sqs
FLOOR AREA - U3				
1F	70.00	sqm	7.53	sqs
2F	62.00	sqm	6.67	sqs
TOTAL	132.00	sqm	14.20	sqs
PORCH	1.50	sqm	0.16	sqs
BALCONY	13.00	sqm	1.40	sqs
GARAGE	36.00	sqm	3.87	sqs
FLOOR AREA - U4				
1F	70.00	sqm	7.53	sqs
2F	62.00	sqm	6.67	sqs
TOTAL	132.00	sqm	14.20	sqs
PORCH	1.50	sqm	0.16	sqs
BALCONY	13.00	sqm	1.40	sqs
GARAGE	36.00	sqm	3.87	sqs
FLOOR AREA - U5				
1F	54.00	sqm	5.81	sqs
2F	65.00	sqm	6.99	sqs
TOTAL	119.00	sqm	12.80	sqs
PORCH	1.30	sqm	0.14	sqs
BALCONY	8.00	sqm	0.86	sqs
GARAGE	21.00	sqm	2.26	sqs
FLOOR AREA - U6				
1F	54.00	sqm	5.81	sqs
2F	65.00	sqm	6.99	sqs
TOTAL	119.00	sqm	12.80	sqs

NOTE: ROOF CATCHMENT AREA TO BE DIVERTED TO THE RAINWATER TANK FOR EACH DWELLING, IF REQUIRED, THE USE OF CHARGED PIPE SYSTEM WILL BE EXPLICITLY ACKNOWLEDGED ON THE DRAWINGS AND CHARGED PIPES WILL NOT BE RUNNING UNDERNEATH THE BUILDING FOOTPRINT

NOTE: FOR ALL SIX UNITS,:
PROVIDE 4 WELS STAR RATING TOILETS.
PROVIDE 5 WELS STAR RATING TAPS IN ALL BATHROOM AND KITCHEN.
PROVIDE 4 STAR WELS STAR RATING SHOWERHEAD WITH AERATION DEVICE (6.0-7.5L/MIN).
PROVIDE 5 STAR WELS STAR RATING DISHWASHERS.

NOTE: STORMWATER TANK TO BE CONNECTED TO THE TOILET AND LAUNDRY

NOTE: NATIVE OR DROUGHT TOLERANT SPECIES TO BE SELECTED AND PLANTED IN THE LANDSCAPED AREA. WATERING WILL NOT BE REQUIRED AFTER AN INITIAL PERIOD WHEN PLANTS ARE GETTING ESTABLISHED. IF IRRIGATION IS REQUIRED, IT WILL BE CONNECTED TO RAINWATER TANKS

NOTE: 4W/M² LIGHTING DENSITY IN THE DWELLINGS

NOTE: COMMITMENT TO ACHIEVE 6.5-STAR AVERAGE ENERGY RATING FOR THE DEVELOPMENT

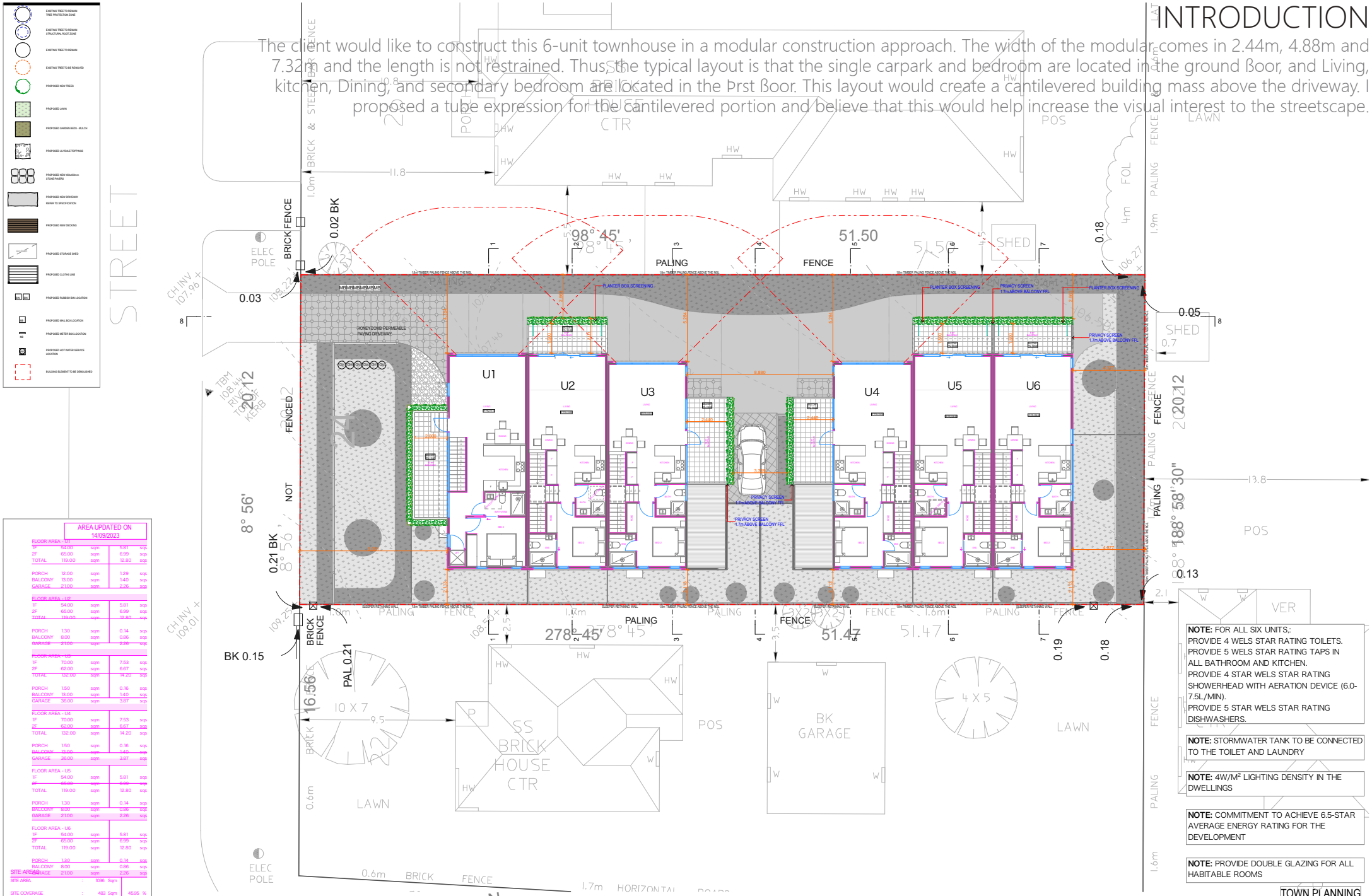
Project 7 - Multiunit Development - 24 Kidgell Street, Lilydale, VIC, 3138

Town Planning Application for Modular Construction Approach

Rationale Design

INTRODUCTION

The client would like to construct this 6-unit townhouse in a modular construction approach. The width of the modular comes in 2.44m, 4.88m and 7.32m and the length is not restrained. Thus, the typical layout is that the single carpark and bedroom are located in the ground floor, and Living, kitchen, Dining, and secondary bedroom are located in the first floor. This layout would create a cantilevered building mass above the driveway. I proposed a tube expression for the cantilevered portion and believe that this would help increase the visual interest to the streetscape.



FIRST FLOOR PLAN
1:100

AREA UPDATED ON 14/09/2023				
FLOOR AREA - U1				
1F	54.00	sqm	5.81	sqs
2F	65.00	sqm	6.99	sqs
TOTAL	119.00	sqm	12.80	sqs
PORCH	12.00	sqm	1.29	sqs
BALCONY	13.00	sqm	1.40	sqs
GARAGE	21.00	sqm	2.26	sqs
FLOOR AREA - U2				
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2F	65.00	sqm	6.99	sqs
TOTAL	119.00	sqm	12.80	sqs
PORCH	1.30	sqm	0.14	sqs
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BALCONY	13.00	sqm	1.40	sqs
GARAGE	36.00	sqm	3.87	sqs
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BALCONY	13.00	sqm	1.40	sqs
GARAGE	36.00	sqm	3.87	sqs
FLOOR AREA - U5				
1F	54.00	sqm	5.81	sqs
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TOTAL	119.00	sqm	12.80	sqs
PORCH	1.30	sqm	0.14	sqs
BALCONY	8.00	sqm	0.86	sqs
GARAGE	21.00	sqm	2.26	sqs
FLOOR AREA - U6				
1F	54.00	sqm	5.81	sqs
2F	65.00	sqm	6.99	sqs
TOTAL	119.00	sqm	12.80	sqs
PORCH	1.30	sqm	0.14	sqs
BALCONY	8.00	sqm	0.86	sqs
GARAGE	21.00	sqm	2.26	sqs

SITE AREAS				
SITE AREA	:	1036 Sqm		
SITE COVERAGE	:	483 Sqm	45.95	%
HARD SURFACES COVERAGE	:	652 Sqm	62.16	%
PERMEABLE AREA	:	396 Sqm	38.22	%
GARDEN AREAS				
AREAS WITH A MINIMUM DIMENSION OF 1 METRE OPEN TO THE SKY		367 Sqm	35.42	%

NOTE: FOR ALL SIX UNITS,:
PROVIDE 4 WELS STAR RATING TOILETS.
PROVIDE 5 WELS STAR RATING TAPS IN ALL BATHROOM AND KITCHEN.
PROVIDE 4 STAR WELS STAR RATING SHOWERHEAD WITH AERATION DEVICE (6.0-7.5L/MIN).
PROVIDE 5 STAR WELS STAR RATING DISHWASHERS.

NOTE: STORMWATER TANK TO BE CONNECTED TO THE TOILET AND LAUNDRY

NOTE: 4W/M² LIGHTING DENSITY IN THE DWELLINGS

NOTE: COMMITMENT TO ACHIEVE 6.5-STAR AVERAGE ENERGY RATING FOR THE DEVELOPMENT

NOTE: PROVIDE DOUBLE GLAZING FOR ALL HABITABLE ROOMS

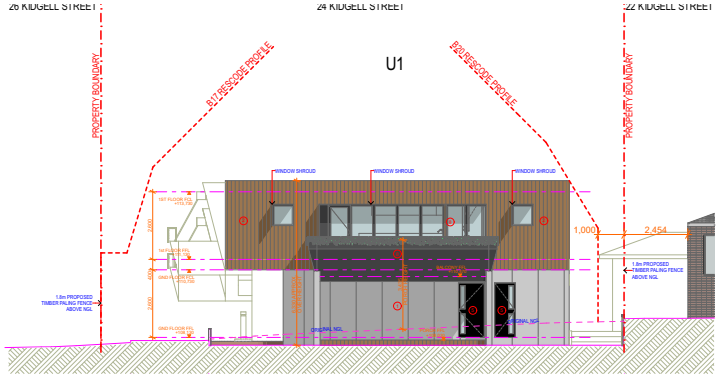
TOWN PLANNING

RATIONALE DESIGN

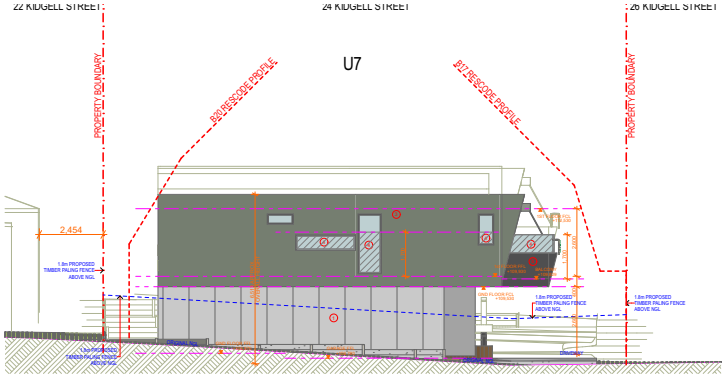
PROJECT : 24 KIDGELL STREET, LILYDALE, 3140
CLIENT : JJS ASSET MANAGEMENT PTY LTD
DRAWING TITLE : PROPOSED FIRST FLOOR
SCALE : 1:100
PLOT DATE: 2023/10/18
DRAWN BY : JL
CHECKED : RM
DRAWING No : TP06
REVISIONS : -
JOB No : 2102

REVISION NO. | DESCRIPTION | DATE

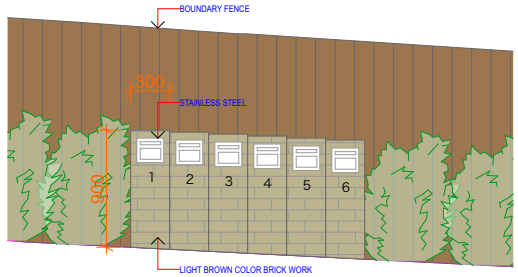
Robert Morgan
Architect B.Arch. MA
ABN 59 949 175 379
20 Boonwing Street
Blackburn, Vic 3130
Mobile: 0417 274 416
Email: office@rationaldesign.com.au
rationaldesign.com.au



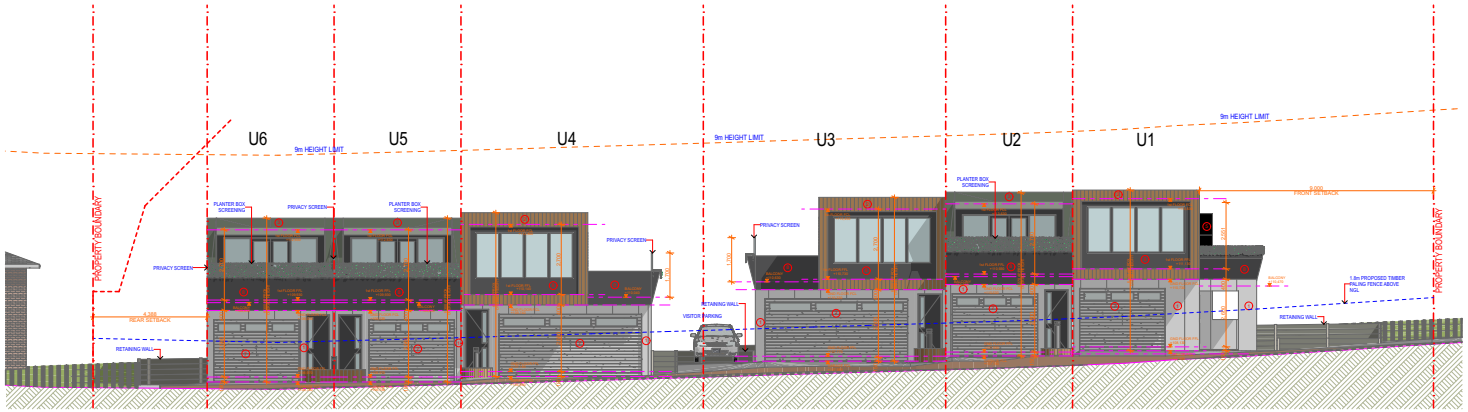
WEST ELEVATION
1:100



EAST ELEVATION
1:100

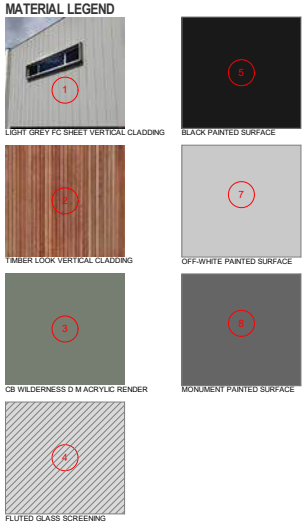


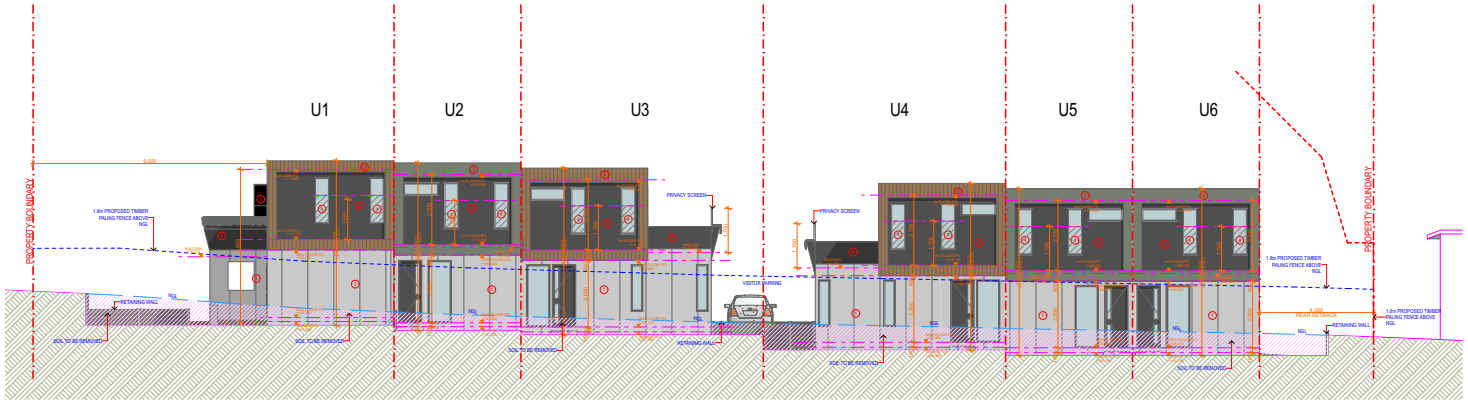
LETTERBOX DESIGN
1:20



NORTH ELEVATION
1:100

MATERIAL LEGEND





SOUTH ELEVATION
1:100

NOTE: PROVIDE DOUBLE GLAZING FOR ALL HABITABLE ROOMS

TOWN PLANNING

RATIONALE DESIGN

PROJECT : 24 KIDGELL STREET, LILYDALE, 3140
CLIENT : JJS ASSET MANAGEMENT PTY LTD
DRAWING TITLE : PROPOSED ELEVATION
SCALE : 1:100, 1:20
PLOT DATE: 2023/10/18
DRAWN BY : JL
CHECKED : RM
DRAWING No : TP09
REVISIONS : -
JOB No : 2102

REVISION NO.	DESCRIPTION	DATE
-	-	-

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Project 8 - Yarra River Boathouse Renovation

Burton and Carter Architects

Melbourne, Victoria, Australia

Participated Project Content

Prepared design drawings.
Rendered and post-processed visualizations.
Drafted construction drawings for dining and kitchen

Waterfront Perspective

Entrance Perspective

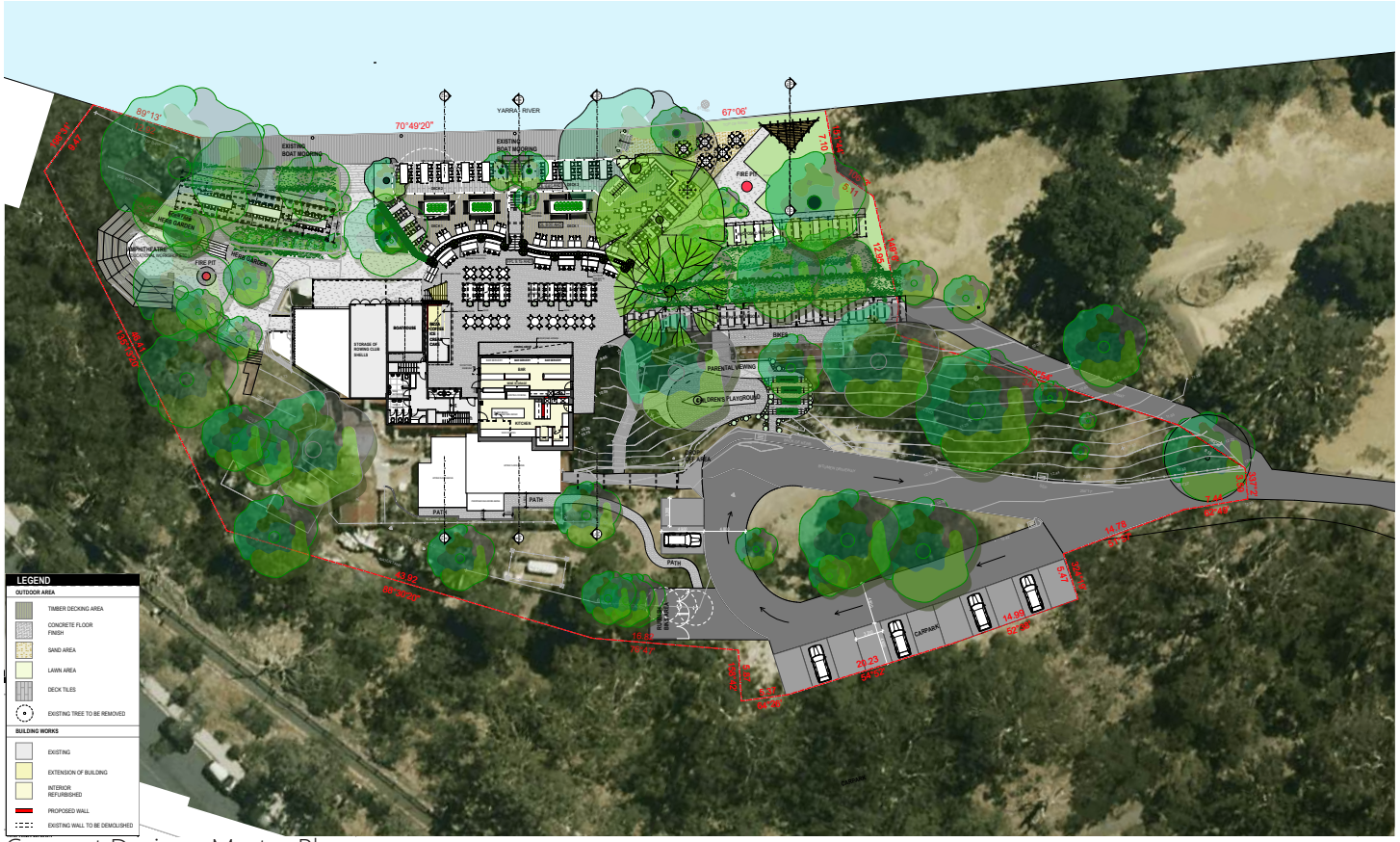
Tarrace Perspective

Introduction

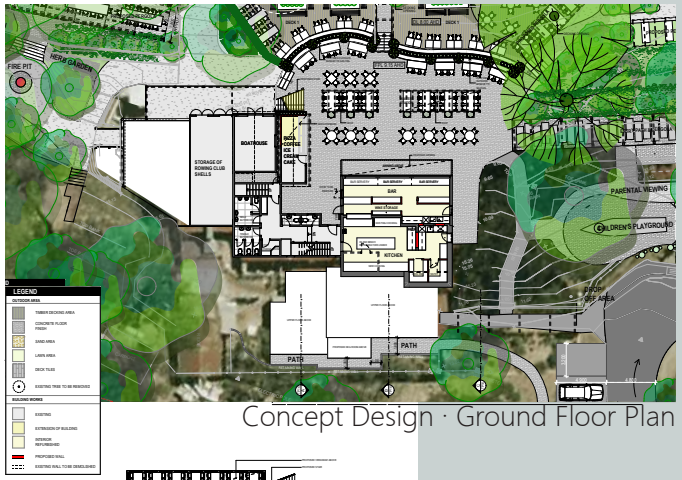
The project is located in Dockyard Park along the Yarra River in Melbourne's inner suburbs. The park offers visitors boating, outdoor picnics, and venues for both indoor and outdoor activities. The existing building, situated by the river, is a heritage-listed structure. On the ground ßoor, it provides dining, retail, and boat rental services, while a modernized kitchen serves gourmet meals for the second-ßoor restaurant.

Due to the heritage status of the building, the renovation work focused on repainting the exterior walls and roof, partial repairs, and minor extensions to the second-ßoor platform and walkways. Internally, the design involved removing numerous partition walls, reorganizing interior spaces, and redesigning the interior style. The ground-ßoor kitchen was also redesigned, with new equipment installed and additional functionalities introduced.

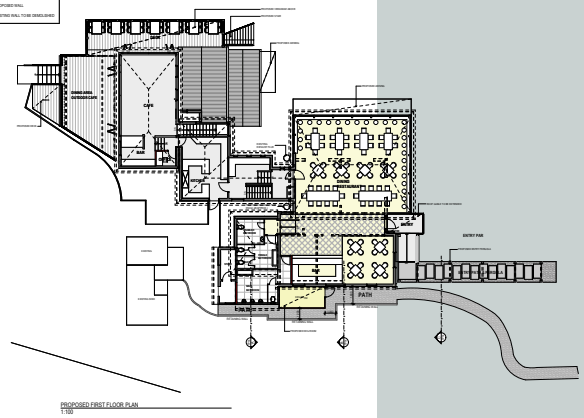
The outdoor landscape and plaza were almost entirely redesigned. A new platform and dining area were added in front of the heritage building, and the building entrance was reconÞgured. The project also required collaboration with landscape architects to incorporate diverse species of trees and plants into the new Dockyard Park, tailored to the client's requirements.



Concept Design · Master Plan

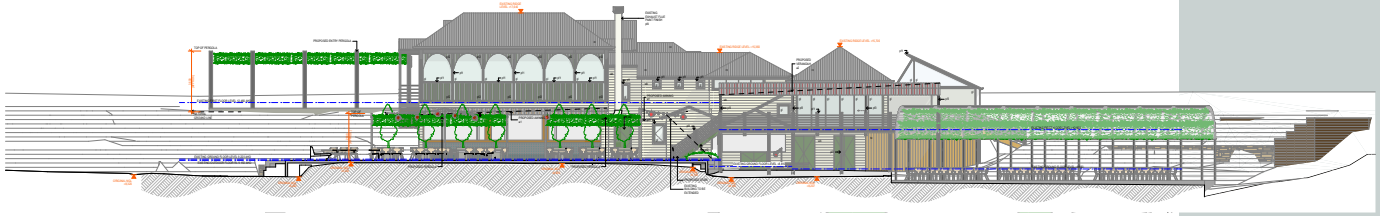


Concept Design · Ground Floor Plan

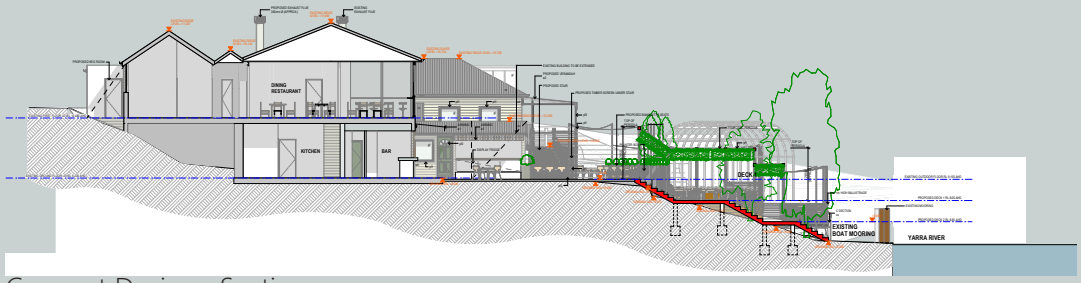


Concept Design · Second Floor Plan

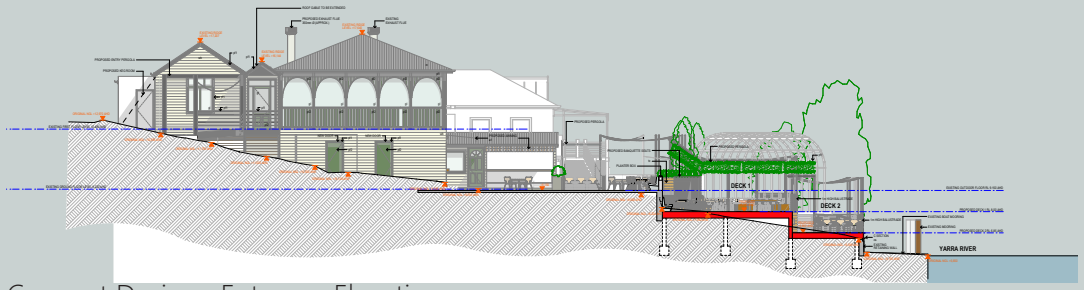
The design of the outdoor space and platform focused on effectively utilizing the existing terrain's elevation differences. The designer divided the platform into four sections:The Þrst section, located in front of the building, serves as a small plaza with numerous dining tables, enabling convenient service from the ground-ßoor kitchen.
The second and third sections are lower-tier platforms featuring additional dining tables arranged around ßower beds. Booth seating is installed between the Þrst and second sections.
The fourth section, a deck area, is primarily designated for visitors boarding and disembarking boats.



Concept Design · Restaurant Elevation



Concept Design · Section



Concept Design · Entrance Elevation

Renderings · Seaside Elevation Perspective

Project 9 - Sedgers Reef Hotel Design

Burton and Carter Architects

New South Wales, Australia

Participated Project Content

Prepared design drawings, Created planning approval drawings, Rendered and post-processed visualizations.

Renderings · Main Entrance Perspective

Renderings · Restaurant Perspectie

Renderings · Restaurant Perspective

Renderings · Bar Perspective

Introduction

The project is located in the coastal town of Iluka, New South Wales, with the site facing the ocean and beach, and being close to the main road. Currently, there is a single-story resort hotel on the site, which the developer plans to replace with a modern-style hotel.

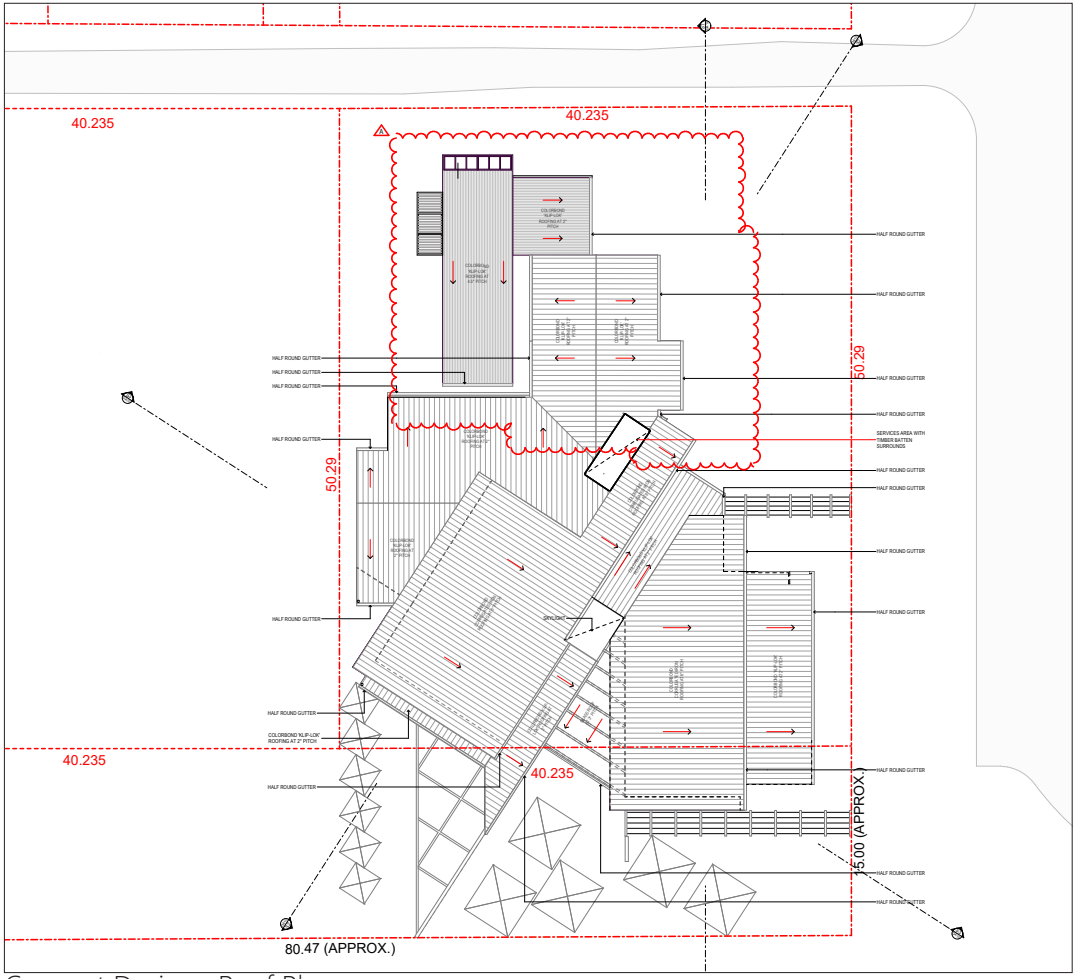
The architectural design incorporates a large amount of white and natural wood Þnishes to evoke a fresh, relaxed, and natural beachside resort style. The truss structure of the new building is left exposed indoors, complemented by hanging lights, black grids, and plants on the roof, enriching the overall roof design.

The hotel's main functions include a restaurant, bar, and recreational areas, with dining tables designed primarily for 4-6 people, featuring low wooden tables and seating for dining, as well as high tables and stools for drinking. The exterior Þnishes use ribbed, precast concrete panels. The roof features a Klip-Lok metal pitched roof.

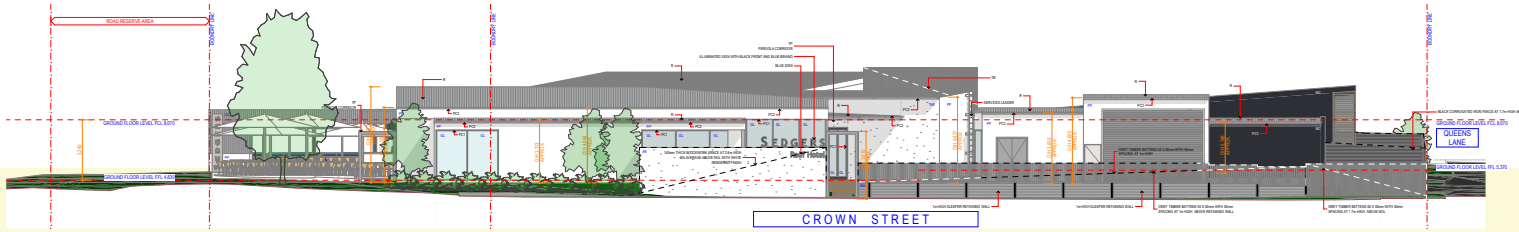
Renderings · Restroom Perspective

Renderings · Street View Perspective of the Building

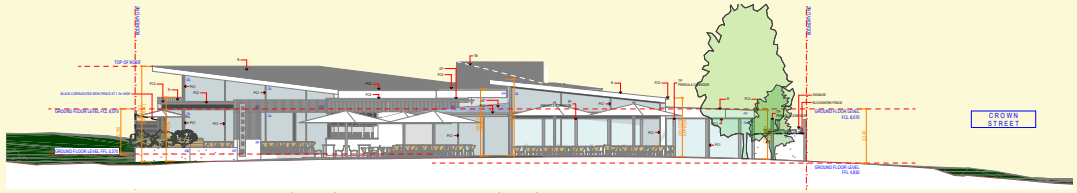
Concept Design · Ground Floor Plan



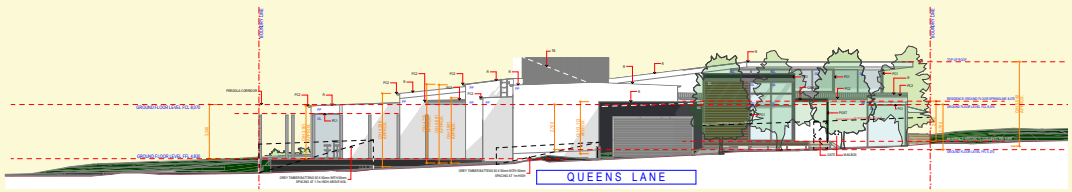
Concept Design · Roof Plan



Concept Design · Street Elevation (East Elevation)



Concept Design · Seaside Elevation (South Elevation)



Concept Design · Rear Elevation (North Elevation)

Renderings · Shoreline Walkway Perspective

Project 10 - Yarra Botanical Floating Bar Design

Burton and Carter Architects

Melbourne, Victoria, Australia

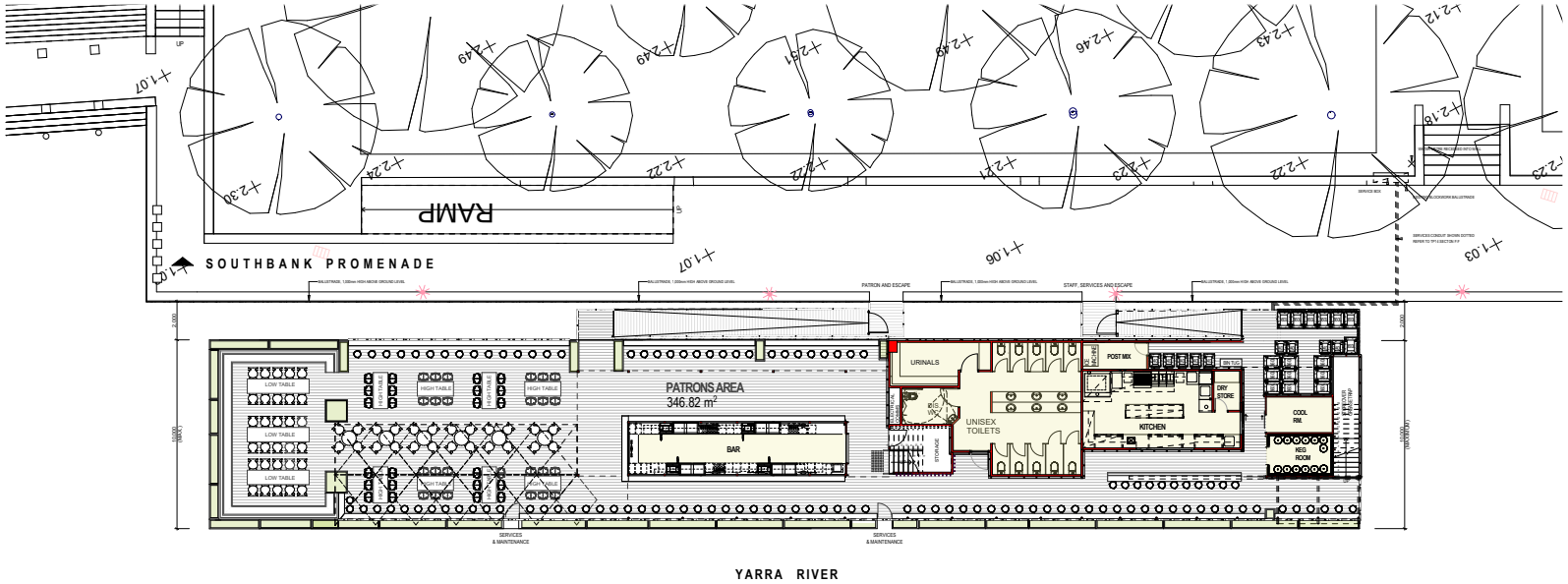
Participated Project Content

Created planning approval drawings, Prepared construction drawings, Rendered and post-processed visualizations.

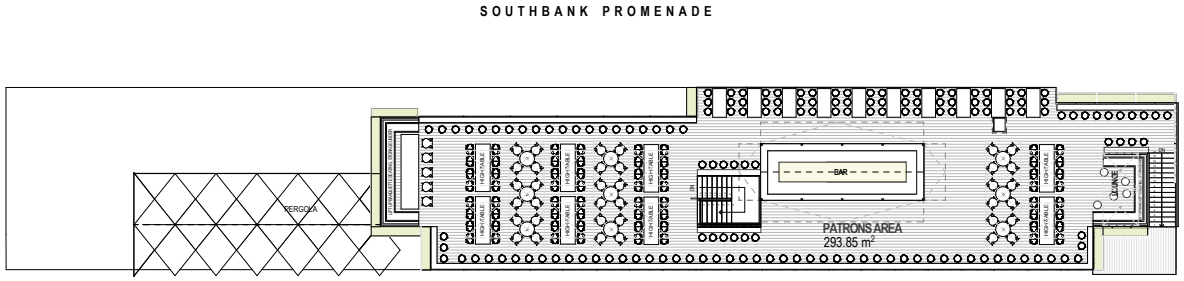
Introduction

The bar dock is located on the Yarra River, which ßows through downtown Melbourne. The bar has two open-plan levels, both equipped with dining tables and umbrellas. On one side of the dock, near the shore, there are two ramps that guide visitors onto the dock's deck or up to the second level via stairs.

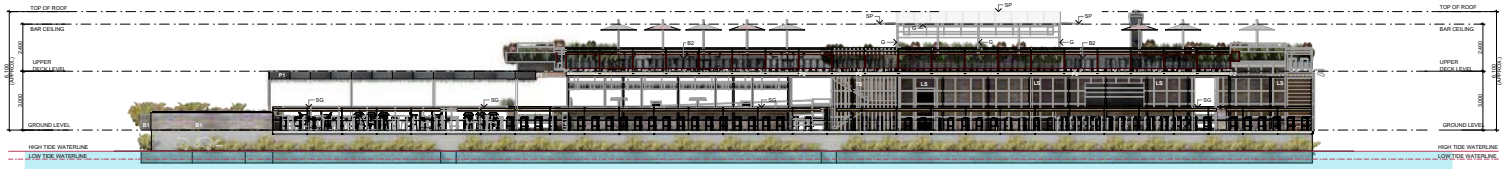
The dock features a large bar and kitchen to serve food and drinks. Surrounding the dock are ßower beds, and areas with a roof are covered with greenery. The main dining tables are located in the center of the dock, while high tables and bar stools are arranged around the dock's perimeter, offering visitors a place to enjoy drinks and scenic views



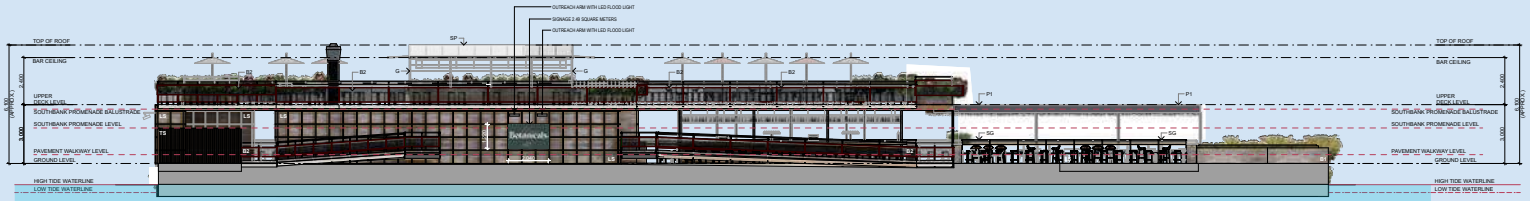
Concept Design · Dock Ground Floor Plan



Concept Design · Dock Second Floor Plan



Concept Design · Dock Elevation (Near Shore)



Concept Design · Dock Elevation (Far from Shore)

Concept Design · Site Location

Concept Design · Aerial View

Renderings · Shoreline Walkway Perspective

Renderings · Street View Perspective

Project 11 - Public House Renovation

Burton and Carter Architects

Melbourne, Victoria, Australia

Participated Project Content

Created planning approval drawings, Prepared construction drawings, Rendered and post-processed visualizations.

Photo · Rooftop Steps

Photo · Ground Floor Bar

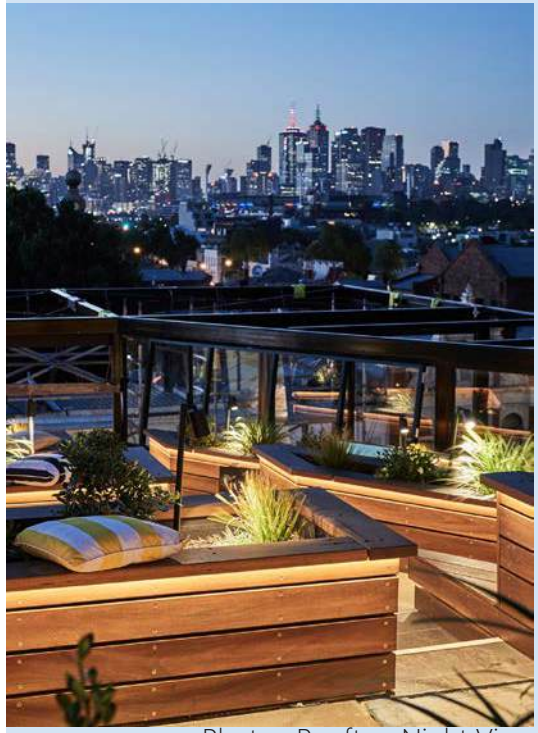


Photo · Rooftop Night View

Photo · Ground Floor Bar Counter

Photo · Second Floor Rooftop Terrace

Introduction

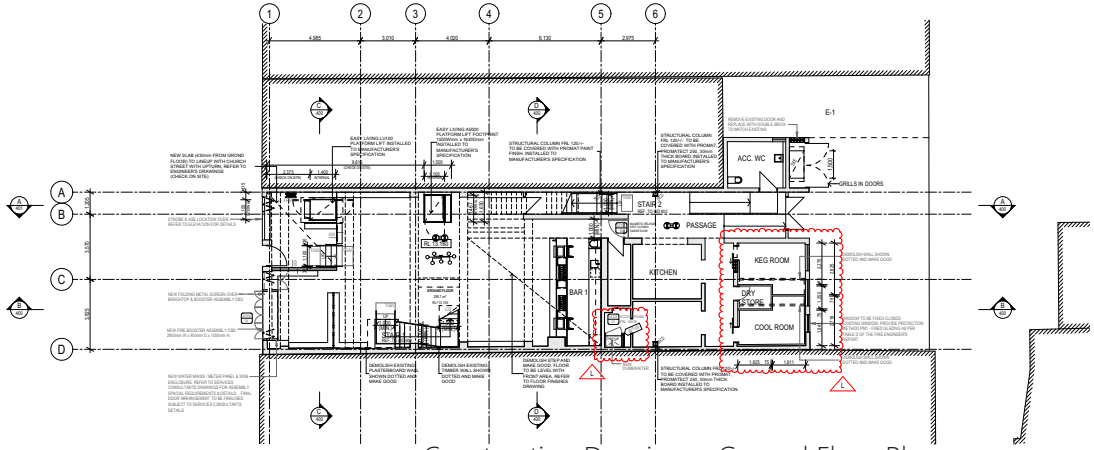
The bar is located in the inner suburbs of the city center. The owner plans to add an open rooftop space and completely renovate the bar. The ground ßoor's new design retains the original brick walls, while perforated multi-layered ceiling panels and wooden partition screens create a contrast between the old and new, with a uniÞed color scheme. The emerald green bar becomes the focal point of the ground ßoor design. The second ßoor features a new layout with freshly installed carpets and a new bar.

The rooftop open space becomes the highlight of the design. The designer used a steel structure to support a stepped rooftop bar, allowing guests to gather in small groups and enjoy the city skyline. The steel structure's stepped framework also adds a unique feature to the street view.

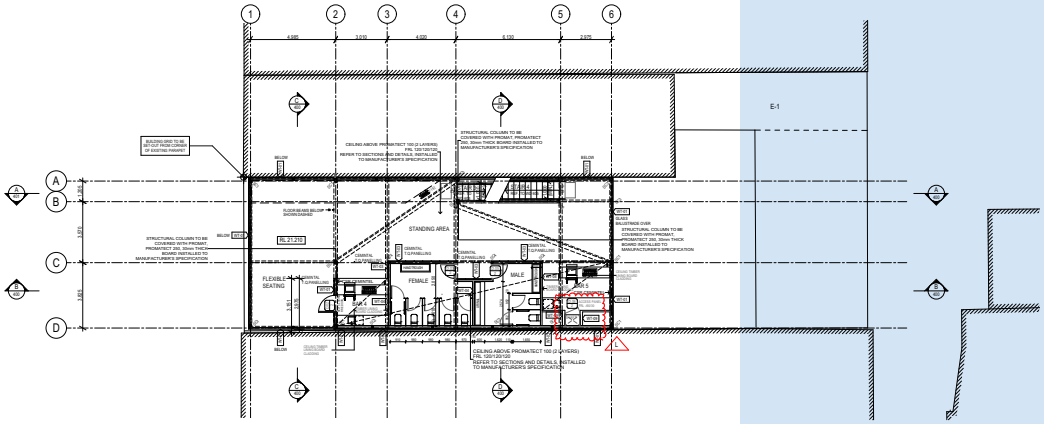
Renderings · Ground Floor Bar Counter

Renderings · Ground Floor Staircase

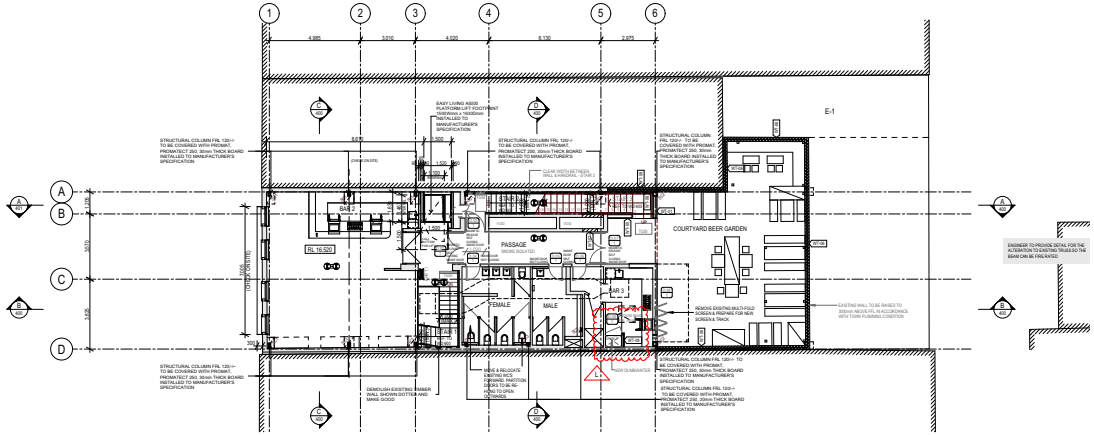
Renderings · Ground Floor Entrance



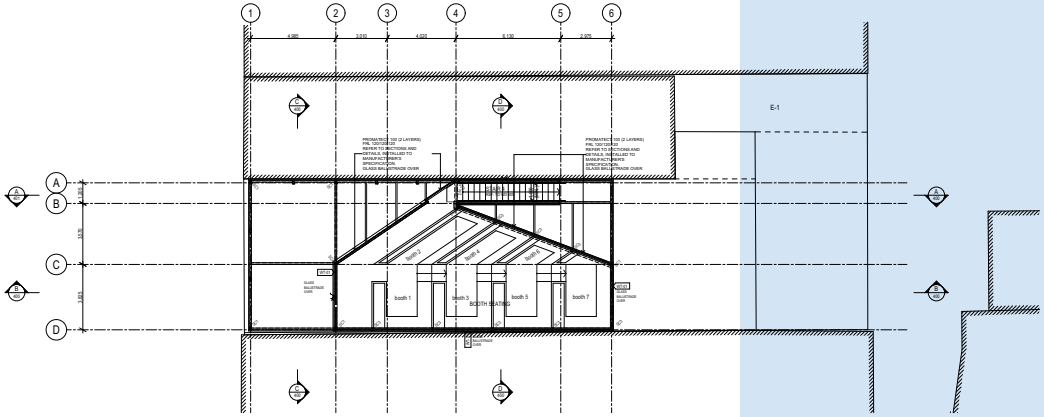
Construction Drawings · Ground Floor Plan



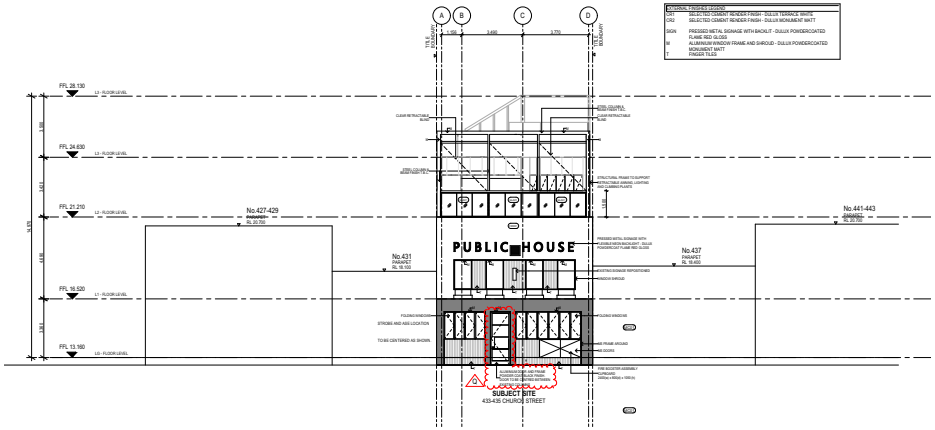
Construction Drawings · Rooftop Terrace Plan



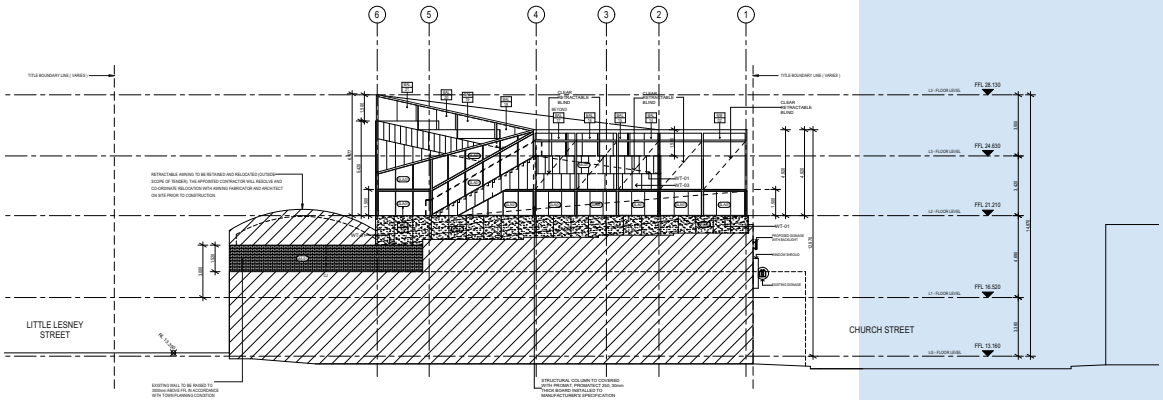
Construction Drawings · Second Floor Plan



Construction Drawings · Staircase Terrace Plan



Construction Drawings · Street Elevation



Construction Drawings · Rooftop Terrace Elevation

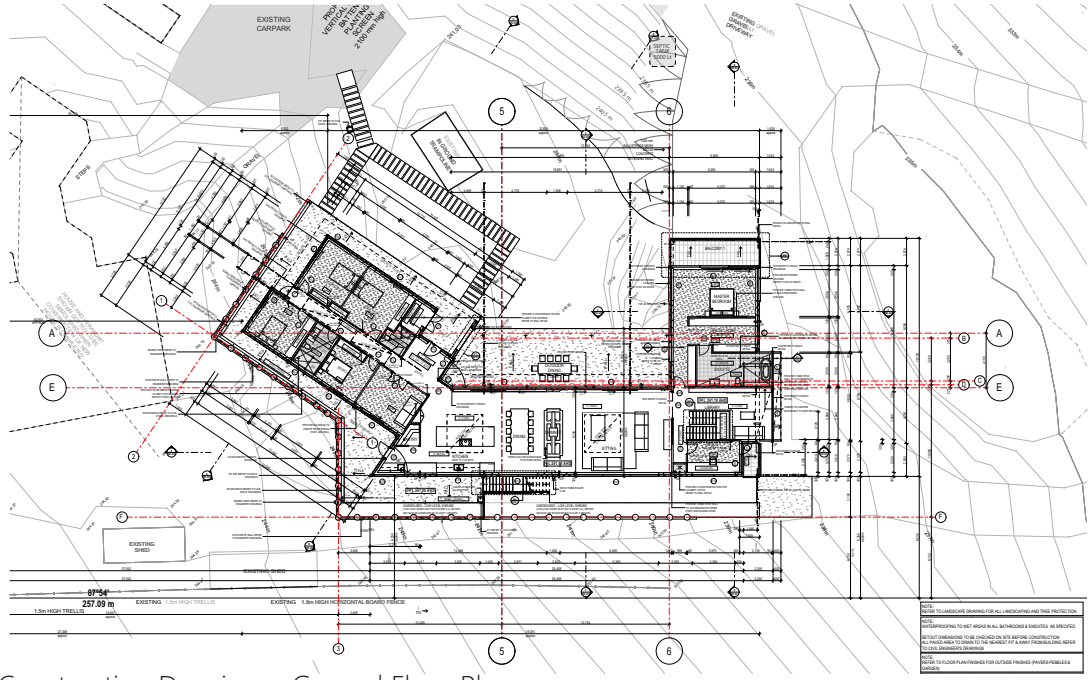
Project 12 - Villa Design

Burton and Carter Architects

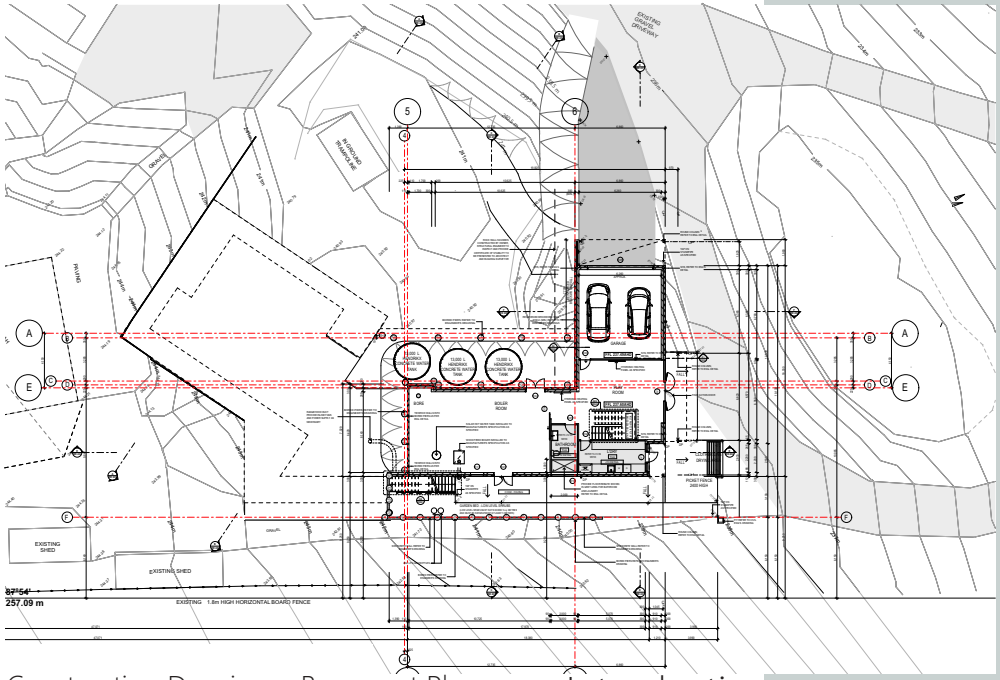
Melbourne, Victoria, Australia

Participated Project Content

Prepared construction drawings.



Construction Drawings · Ground Floor Plan



Construction Drawings · Basement Plan

Introduction

This private, exclusive villa is located in the outskirts of Melbourne and serves as the owner's weekend getaway retreat. The design makes excellent use of the site's elevation difference, positioning the secondary bedrooms, dining area, kitchen, and living room on higher ground, while the garage and utility rooms are placed on the lower level. The villa features a minimalist kitchen design, with the Þreplace seamlessly integrated into the structure. The roof is covered with greenery, and skylights are installed to allow ample natural light to ßood the interior.

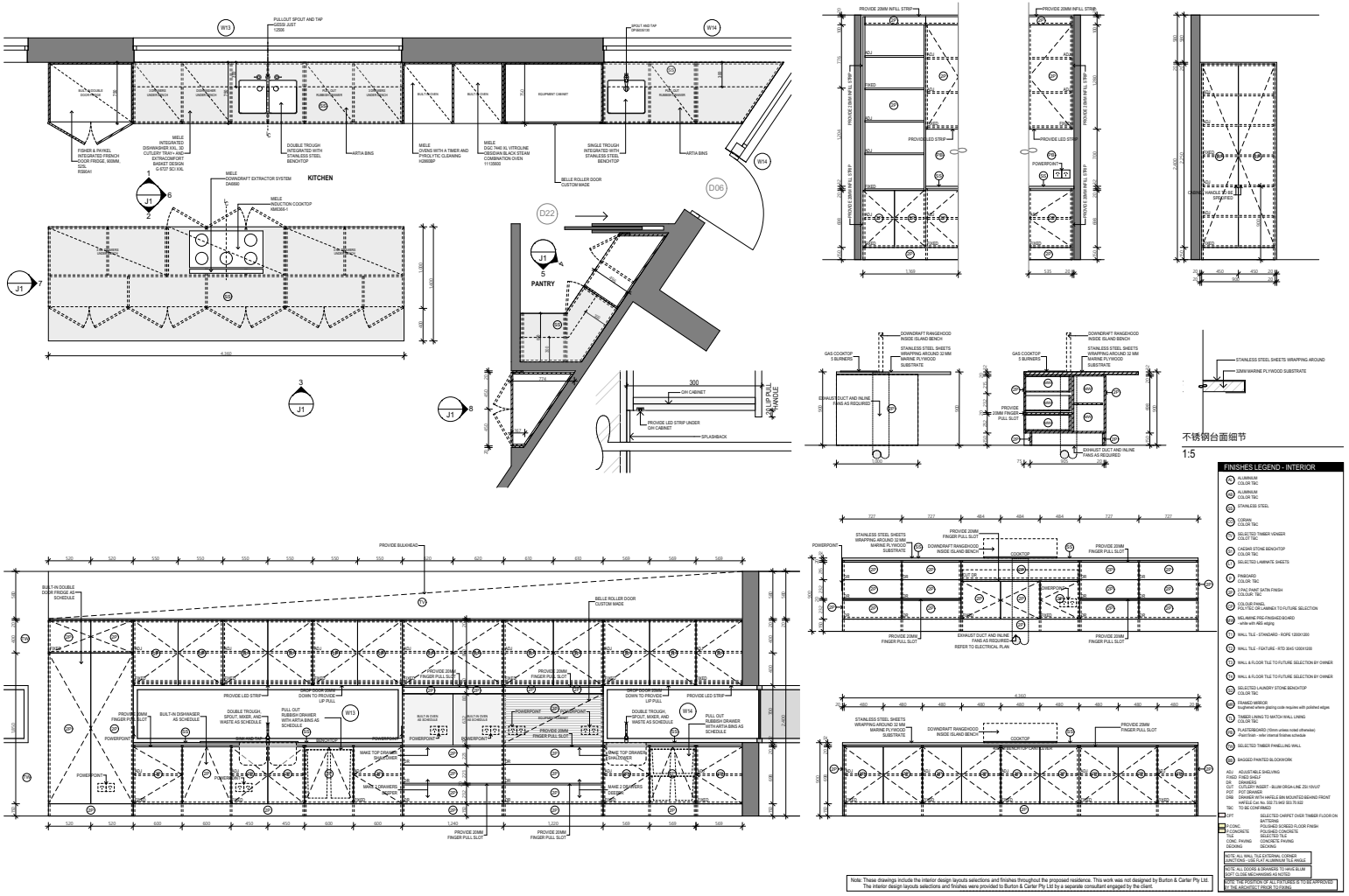
Renderings · Side View

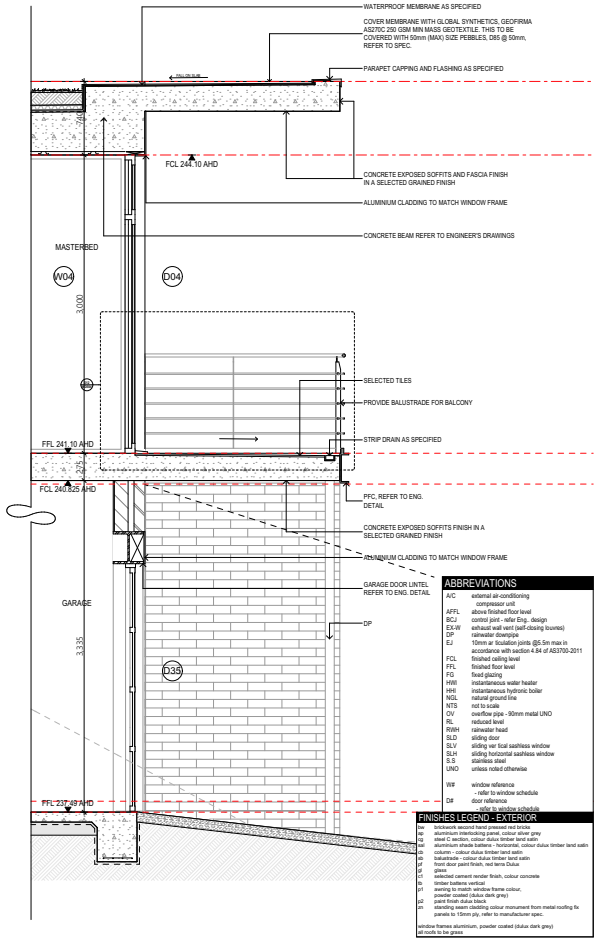
Renderings · Aerial View

Renderings · Kitchen

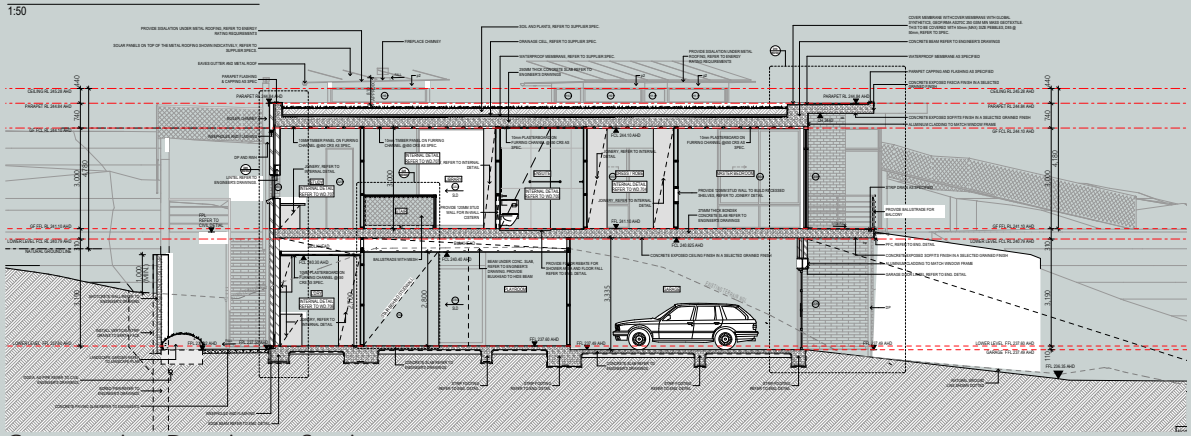
Renderings · Kitchen and Dining

Renderings · Living Room

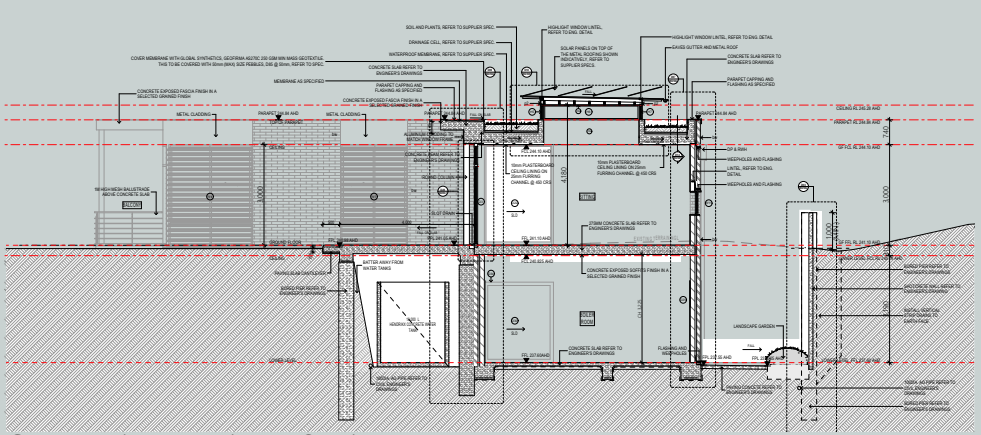




Construction Drawings · Wall Detail



Construction Drawings · Section



Construction Drawings · Section

Project 13 - Hawthern Hotel Renovation

Burton and Carter Architects

Melbourne, Victoria, Australia

Rendering · Ground Floor Restaurant

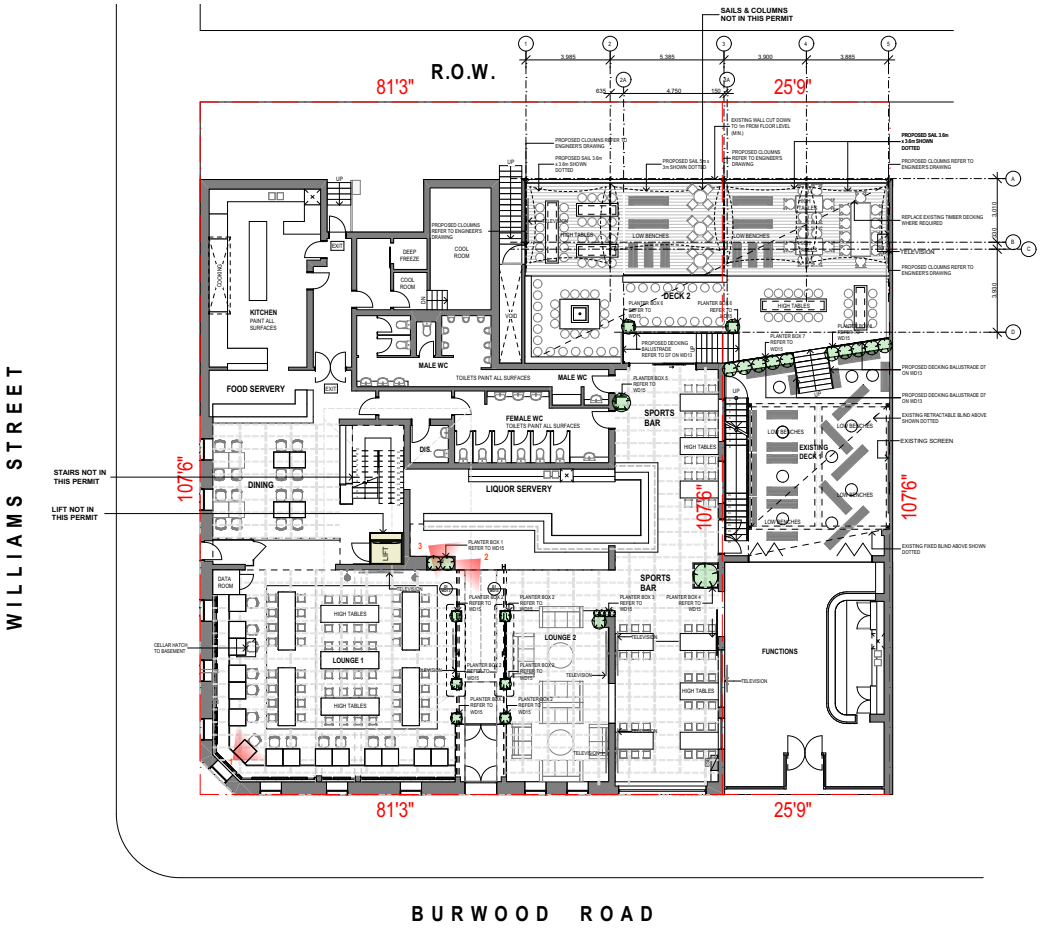
Participated Project Content

Created design drawings.
Prepared construction drawings.
Rendered and post-processed visualizations.

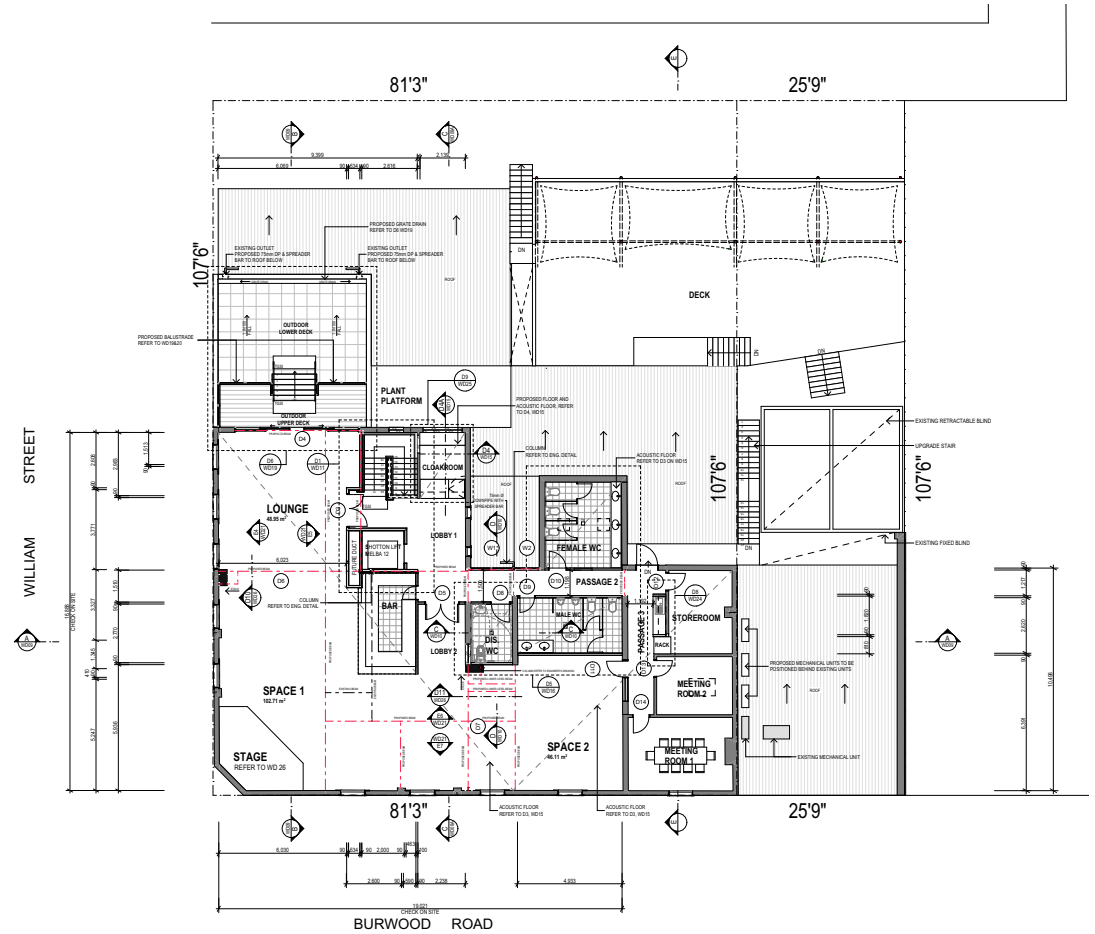
Renderings · First Floor Activity Space Bar Counter Perspective

Renderings · Ground Floor Bar Counter Perspective

Renderings · Ground Floor Restaurant Entrance Perspective



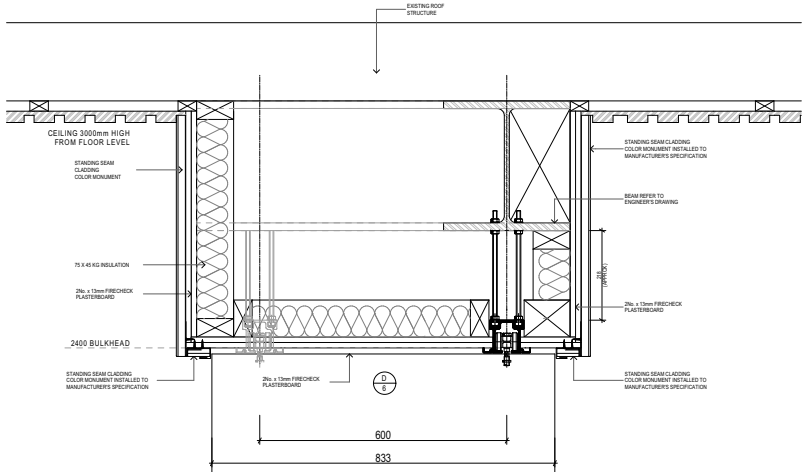
Construction Drawings · Ground Floor Plan



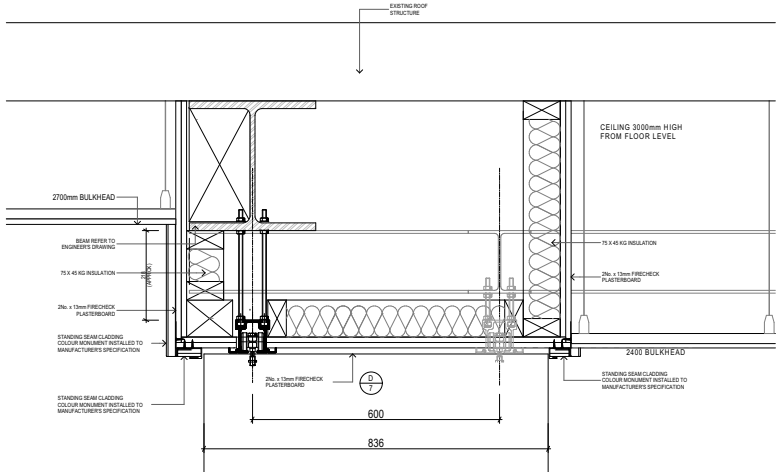
Construction Drawings · Second Floor Plan

Introduction

This hotel is located in the near suburb of Melbourne, next to Swinburne University. The ground ßoor features an open bar, while the second ßoor serves as the student activity center for Swinburne University. The owner intends to fully renovate the hotel, redesigning the ground ßoor and replacing the current style, while also demolishing most of the partition walls on the second ßoor to create an open space with movable door panels. The designer will also renovate the outdoor platforms on the ground and second ßoors. During the construction drawing phase, the focus was on redesigning the bar counter, wall and ceiling Þnishes, as well as structural modiÞcations on the second ßoor, including elevator design, new accessible stair design, and details for the sliding doors on the second ßoor.



Construction Drawings · Sliding Door Track Detail

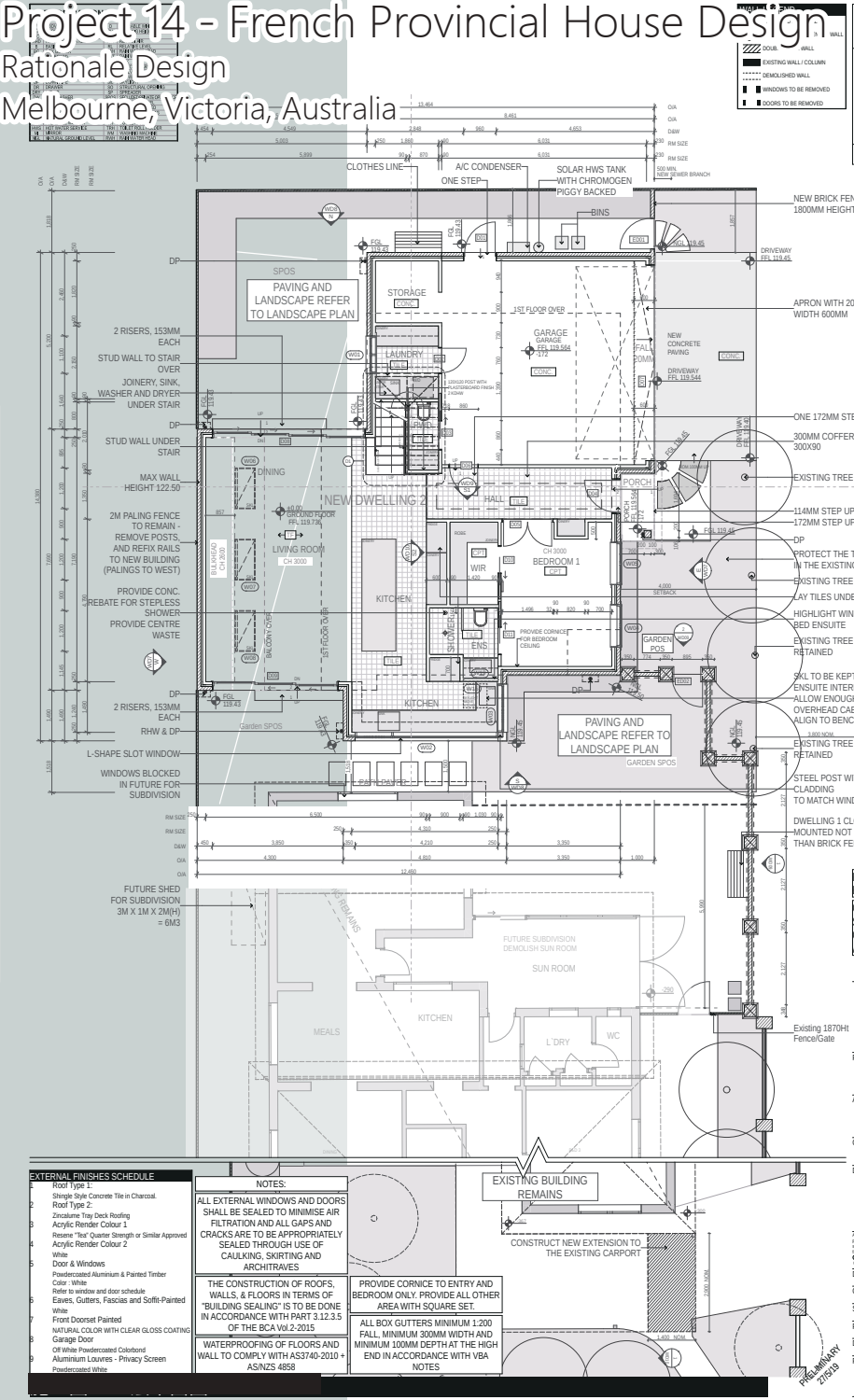


Construction Drawings · Sliding Door Track Detail

Project 14 - French Provincial House Design

Rationale Design

Melbourne, Victoria, Australia



READ IN CONJUNCTION WITH ENGINEER'S DRAWINGS

CHECK ALL DIMENSIONS ON SITE PRIOR TO COMMENCEMENT. IF IN DOUBT, ASK!

Quadrant Design
ARCHITECTURE INTERIOR DESIGN

72 BARKERS ROAD
HAWTHORN VIC 3122
Phone 9429 0277 Fax 9429 8277

Project: PROPOSED EXTENSION

Address: 445 HIGHBURY RD, BURWOOD EAST VIC 3151

Client: PENNI GRAZIANI

Drawing: GROUND FLOOR PLAN

All work shall conform to the spec. & other relevant drawings. Figured dimensions take precedence over scaled dimensions. Check all dimensions on site. Shop drawings must be submitted to this office for approval prior to the commencement of any fabrication.

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Drawn by	JL
Created Date	27/5/19
Scale	1:100@A3
Project No.	0714
Drawing No.	WD03
Rev.	

EXTERNAL FINISHES SCHEDULE

1	Roof Type 1: Shingle Style Concrete Tile in Charcoal.
2	Roof Type 2: Zincalume Tray Deck Roofing
3	Acrylic Render Colour 1 Resene "Ital" Quarter Strength or Similar Approved
4	Acrylic Render Colour 2 White
5	Door & Windows Powdercoated Aluminium & Painted Timber Color : White Refer to window and door schedule
6	Eaves, Gutters, Fascias and Soffit-Painted White
7	Front Doorset Painted NATURAL COLOR WITH CLEAR GLOSS COATING
8	Garage Door Off White Powdercoated Colorbond
9	Aluminium Louvres - Privacy Screen Powdercoated White

NOTES:

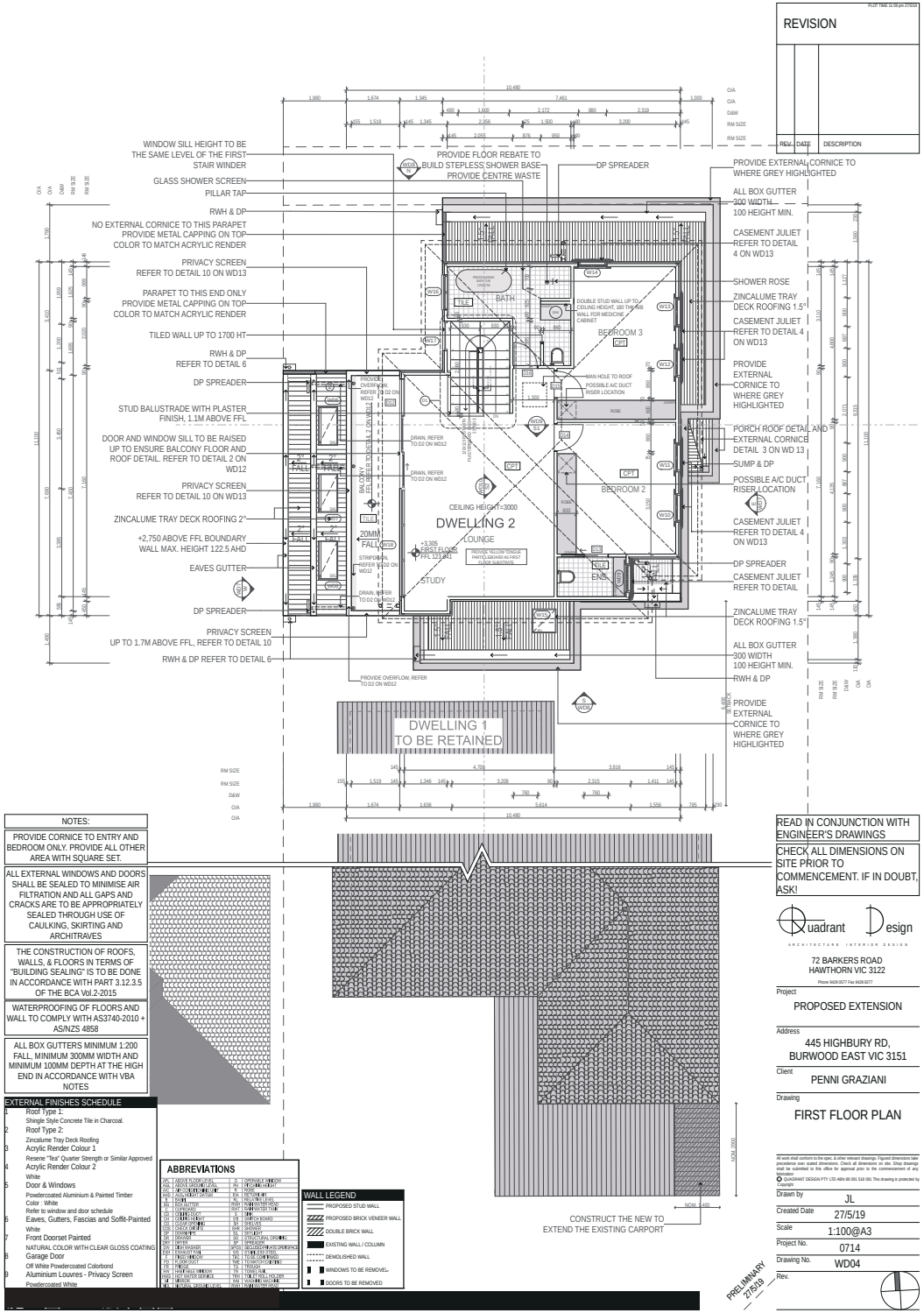
ALL EXTERNAL WINDOWS AND DOORS SHALL BE SEALED TO MINIMISE AIR FILTRATION AND ALL GAPS AND CRACKS ARE TO BE APPROPRIATELY SEALED THROUGH USE OF CAULKING, SKIRTING AND ARCHITRAVES

THE CONSTRUCTION OF ROOFS, WALLS, & FLOORS IN TERMS OF "BUILDING SEALING" IS TO BE DONE IN ACCORDANCE WITH PART 3.12.3.5 OF THE BCA Vol.2-2015

WATERPROOFING OF FLOORS AND WALL TO COMPLY WITH AS3740-2010 + AS/NZS 4858

PROVIDE CORNICE TO ENTRY AND BEDROOM ONLY. PROVIDE ALL OTHER AREA WITH SQUARE SET.

ALL BOX GUTTERS MINIMUM 1:200 FALL, MINIMUM 300MM WIDTH AND MINIMUM 100MM DEPTH AT THE HIGH END IN ACCORDANCE WITH VBA NOTES



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ABBREVIATIONS

AW	ALUMINIUM WINDOW
ADG	ABOVE DOOR GLASS
ADJ	ADJUSTABLE
AC	AIR CONDITIONING
ACL	ACRYLIC
ACT	ACTUAL
BK	BACK
BD	BOARD
CG	CLEARGLASS
CL	CLEARLOCK
CLG	CEILING
CLR	CLEAR
CO	CLEANOUT
CONC	CONCRETE
CT	CERAMIC TILE
DB	DOUBLE
DG	DOUBLE GLAZED
DP	DOWNPIPE
DW	DISHWASHER
EG	EXHAUST
EL	ELECTRICAL
EW	EXTERNAL WINDOW
FC	FIBRE CEMENT
FL	FLOOR
FLR	FLOORING
FP	FIREPLACE
FRP	FIBREGLASS REINFORCED PLASTIC
FW	FIXED WINDOW
GL	GLASS
GLW	GLASS WINDOW
GP	GYPSUM PLASTERBOARD
GPO	GENERAL POWER OUTLET
HB	HOSE BIBB
HC	HOT & COLD
HD	HEAVY DUTY
HM	HOLLOW METAL
HR	HOURS
HW	HOT WATER
IW	INTERNAL WINDOW
JT	JOINTER
LAM	LAMINATE
LD	LAUNDRY DOWN
LV	LOUVRE
MB	MAILBOX
MIN	MINIMUM
MIR	MIRROR
MR	MOISTURE RESISTANT
MS	MOTOR SHOWER
MT	METAL
NCG	NEW CONCRETE GUTTER
NCP	NEW CONCRETE PATH
NCS	NEW CONCRETE SLAB
NCW	NEW CONCRETE WALL
NG	NEW GRADE
NGL	NATURAL GROUND LEVEL
NTS	NOT TO SCALE
OA	OVERALL
OAH	OVERALL HEIGHT
OAL	OVERALL LENGTH
OAW	OVERALL WIDTH
OD	OVERDOOR
OH	OVERHEAD
PB	PLASTERBOARD
PC	PRECAST
PCG	PRECAST CONCRETE GUTTER
PCP	PRECAST CONCRETE PATH
PCS	PRECAST CONCRETE SLAB
PCW	PRECAST CONCRETE WALL
PD	PAPER DISPENSER
PL	PLASTER
PLB	PLASTERBOARD
PLT	PLATE
PS	PAPER SHELF
PT	PAINT
PTN	PARTITION
RC	RAINWATER CONNECTION
RD	ROOF DRAIN
RF	RAINWATER FACE
RG	RAINWATER GUTTER
RH	RAINWATER HEAD
RHW	RAINWATER HEAD WITH OVERFLOW
RL	REFLECTIVE LINE
RS	RAINWATER SPOUT
RW	RAINWATER
SC	SOLID CORE
SD	SOAP DISPENSER
SH	SHOWER
SHR	SHOWER
SK	SKYLIGHT
SL	SLIDING
SP	SPOUT
SPR	SPRINKLER
SS	STAINLESS STEEL
STD	STANDARD
STR	STRUCTURAL
SW	SOLID WALL
TB	TOWEL BAR
TC	TOILET CLOSET
TH	TOILET HOLDER
TP	TOILET PAPER
TR	TOWEL RAIL
TS	TOILET SEAT
TW	TOILET WALL
UC	UNDERCUT
UD	UNDERDOOR
UNO	UNLESS NOTED OTHERWISE
VB	VANITY BASE
VT	VINYL TILE
WB	WASHING BASIN
WC	WATER CLOSET
WD	WASHING DRYER
WM	WASHING MACHINE
WP	WATERPROOFING
WS	WASHING SINK
WT	WASHING TUB

WALL LEGEND

- PROPOSED STUD WALL
- PROPOSED BRICK VENEER WALL
- DOUBLE BRICK WALL
- EXISTING WALL / COLUMN
- DEMOLISHED WALL
- WINDOWS TO BE REMOVED
- DOORS TO BE REMOVED

READ IN CONJUNCTION WITH ENGINEER'S DRAWINGS

CHECK ALL DIMENSIONS ON SITE PRIOR TO COMMENCEMENT. IF IN DOUBT, ASK!

Quadrant Design
ARCHITECTURE INTERIOR DESIGN

72 BARKERS ROAD
HAWTHORN VIC 3122
Phone 9429 0277 Fax 9429 8277

Project: PROPOSED EXTENSION

Address: 445 HIGHBURY RD, BURWOOD EAST VIC 3151

Client: PENNI GRAZIANI

Drawing: FIRST FLOOR PLAN

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Drawn by	JL
Created Date	27/5/19
Scale	1:100@A3
Project No.	0714
Drawing No.	WD04
Rev.	

PRELIMINARY 27/5/19

NOTES:

ALL EXTERNAL WINDOWS AND DOORS SHALL BE SEALED TO MINIMISE AIR FILTRATION AND ALL GAPS AND CRACKS ARE TO BE APPROPRIATELY SEALED THROUGH USE OF CAULKING, SKIRTING AND ARCHITRAVES

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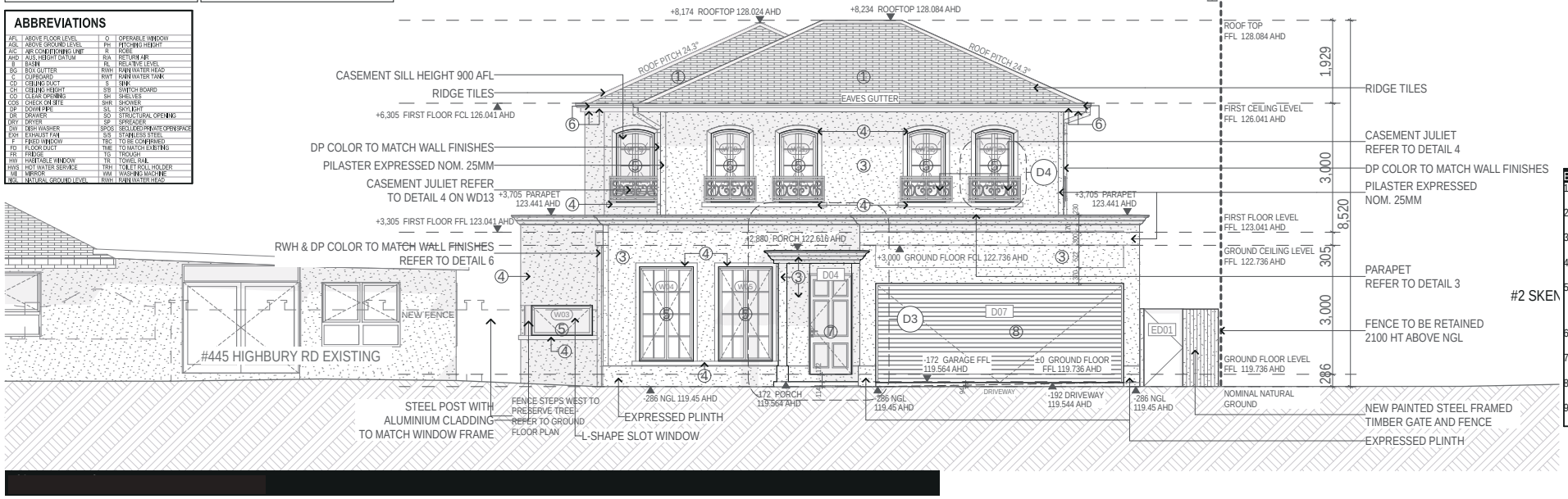
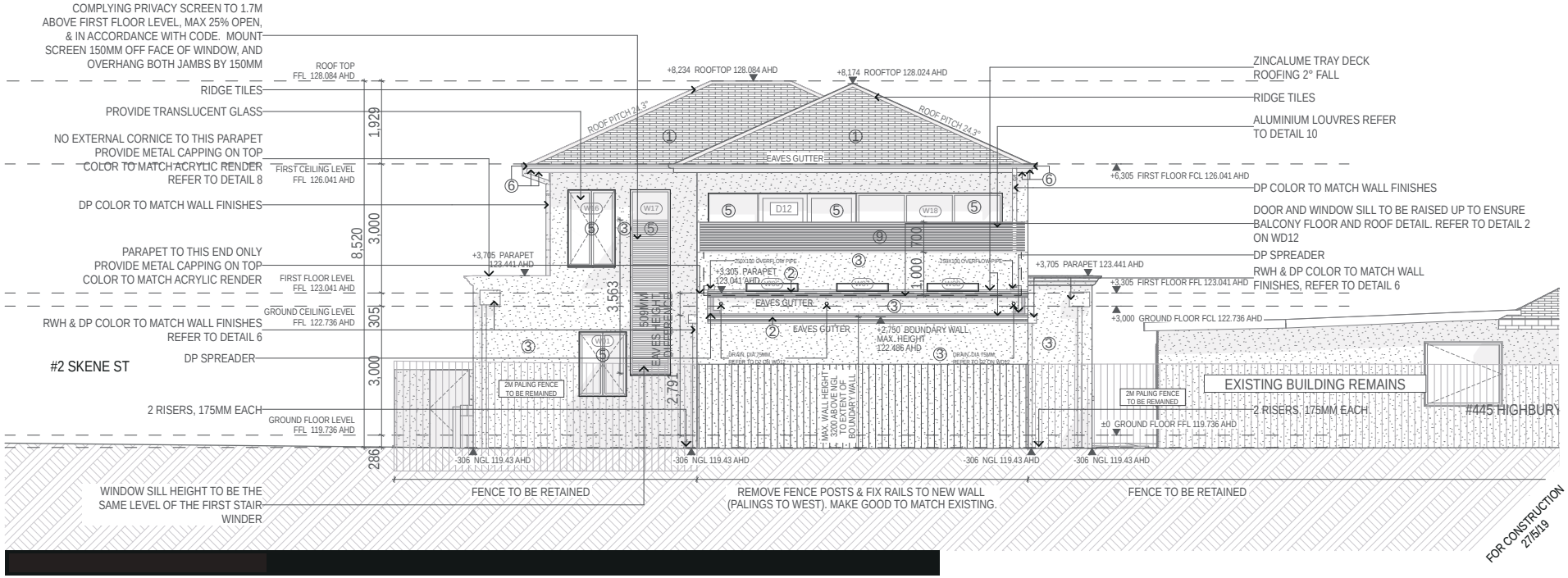
WATERPROOFING OF FLOORS AND WALL TO COMPLY WITH AS3740-2010 + AS/NZS 4858

ALL BOX GUTTERS MINIMUM 1:200 FALL, MINIMUM 300MM WIDTH AND MINIMUM 100MM DEPTH AT THE HIGH END IN ACCORDANCE WITH VBA NOTES

ABBREVIATIONS

AFL	ABOVE FLOOR LEVEL	O	OPERABLE WINDOW
AGL	ABOVE GROUND LEVEL	PH	PITCHING HEIGHT
A/C	AIR CONDITIONING UNIT	R	ROBE
AHD	AUS. HEIGHT DATUM	R/A	RETURN AIR
B	BASIN	RL	RELATIVE LEVEL
B/G	BOX GUTTER	RWH	RAIN WATER HEAD
C	CUPBOARD	RWT	RAIN WATER TANK
CD	CEILING DUCT	S	SINK
CH	CEILING HEIGHT	S/B	SWITCH BOARD
CO	CLEAR OPENING	SH	SHELVES
COS	CHECK ON SITE	SHR	SHOWER
D/P	DOWN PIPE	S/L	SKYLIGHT
DR	DRAWER	S/O	STRUCTURAL OPENING
DRY	DRYER	Sp	SPREADER
D/W	DISH WASHER	SPOS	SECLUDED PRIVATE OPEN SPACE
EXH	EXHAUST FAN	S/S	STAINLESS STEEL
F	FIXED WINDOW	TBC	TO BE CONFIRMED
FD	FLOOR DUCT	TME	TO MATCH EXISTING
FR	FRIDGE	TG	TROUGH
H/W	HABITABLE WINDOW	T/R	TOWEL RAIL
H/W/S	HOT WATER SERVICE	T/R/H	TOILET ROLL HOLDER
M	MIRROR	W/M	WASHING MACHINE
NGL	NATURAL GROUND LEVEL	R/W/H	RAIN WATER HEAD





FOR CONSTRUCTION 27/5/19

PLOT TIME 11:09 pm 27/5/19

REVISION

REV	DATE	DESCRIPTION

EXTERNAL FINISHES SCHEDULE

1	Roof Type 1: Shingle Style Concrete Tile in Charcoal.
2	Roof Type 2: Zincalume Tray Deck Roofing
3	Acrylic Render Colour 1 Resene "Tea" Quarter Strength or Similar Approved
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5	Door & Windows Powdercoated Aluminium & Painted Timber Color : White Refer to window and door schedule
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READ IN CONJUNCTION WITH ENGINEER'S DRAWINGS

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Quadrant Design
ARCHITECTURE INTERIOR DESIGN

72 BARKERS ROAD
HAWTHORN VIC 3122
Phone 9429 0577 Fax 9428 8277

Project
PROPOSED EXTENSION

Address
445 HIGHBURY RD,
BURWOOD EAST VIC 3151

Client
PENNI GRAZIANI

Drawing
ELEVATION

All work shall conform to the spec. & other relevant drawings. Figured dimensions take precedence over scaled dimensions. Check all dimensions on site. Shop drawings shall be submitted to this office for approval prior to the commencement of any fabrication
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Drawn by	JL
Created Date	27/5/19
Scale	1:100@A3
Project No.	0714
Drawing No.	WD07
Rev.	

Project Overview:

This project is a set of construction drawings for a French-style detached house that I created earlier in my career. Through the detailed drafting process, I gained valuable insights into the structural construction, construction techniques, and material selection for Australian timber-framed buildings. This project follows a standard residential construction methodology.

Foundation: The foundation is a waffle slab, which involves laying a vapor barrier, polystyrene board, and reinforcing steel mesh on the ground before pouring the cement slab.

Flooring Between Levels: The floor between the first and second levels uses solid timber beams (Floor Joist).

Roof: The roof is constructed with prefabricated trusses.

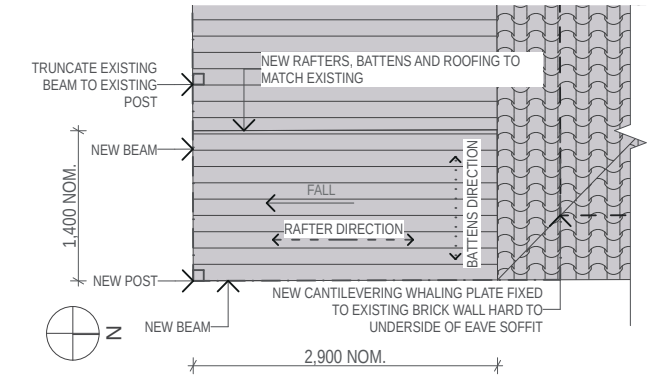
Exterior Walls: The exterior walls on the first floor use a brick veneer technique. This involves constructing a timber frame, adding a damp-proof layer, leaving a cavity, and then laying bricks.

Second Floor: On the second floor, polystyrene boards are fixed to timber battens, with mesh applied before the base coat of cement and acrylic render applied as a finish.

Roof Covering: Cement tiles are used on the roof.

French Style Elements: The French style is expressed through decorative moldings applied at the parapet, window, and door frames.

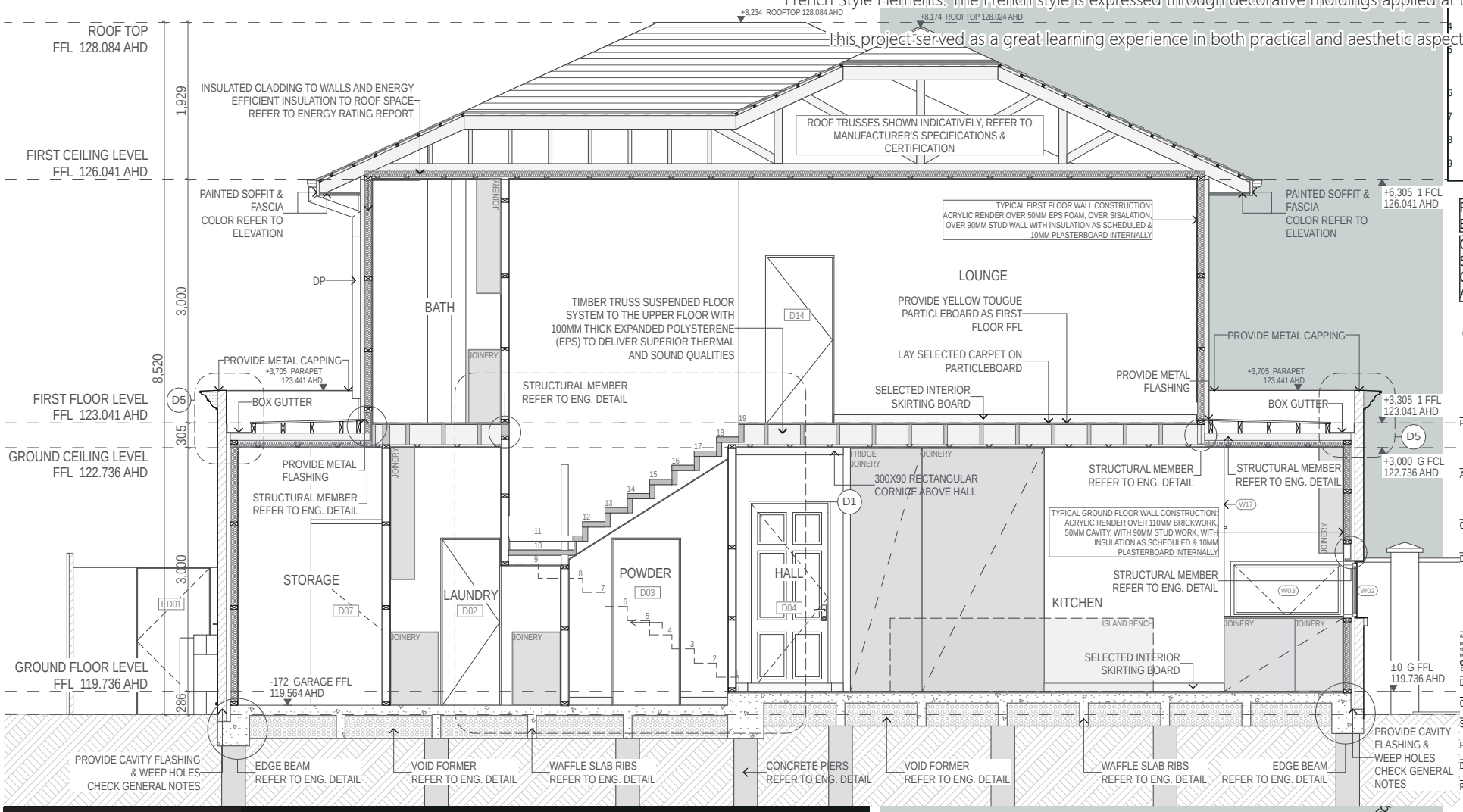
This project served as a great learning experience in both practical and aesthetic aspects of Australian residential architecture.



NEW FASCIAS/BEAMS, INCLUDING THE CATILEVERED WHALING PLATE TO BE 200 X 45 F7

NEW RAFTERS TO MATCH EXISTING - 145 X 35 F7 SPACING TO MATCH EXISTING

NEW WHALING PLATE TO BE FIXED TO EXISTING WALL STRUCTURE WITH GALV M10 COACHBOLTS, TO EACH STUD. FIX EASTERN END OF WHALING PLATE TO EXISTING MAIN ROOF FASCIA AT EAST END



REVISION

REV	DATE	DESCRIPTION
1		Zincalume Tray Deck Roofing.
2		Resene "Tea" Quarter Strength or Similar Approved
4		Acrylic Render Colour 2
5		Door & Windows Powdercoated Aluminium Color : White Refer to window and door schedule
6		Eaves, Gutters, Fascias and Soffit-Painted White
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Quadrant Design
ARCHITECTURE INTERIOR DESIGN
72 BARKERS ROAD
HAWTHORN VIC 3122
Phone 9429 0577 Fax 9428 8277

Project: PROPOSED EXTENSION

Address: 445 HIGHBURY RD, BURWOOD EAST VIC 3151

Client: PENNI GRAZIANI

Drawing: SECTION AND CARPORT EXTENSION

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Drawn by	JL
Created Date	27/5/19
Scale	1:50@A3
Project No.	0714
Drawing No.	WD10
Rev.	

Project Overview

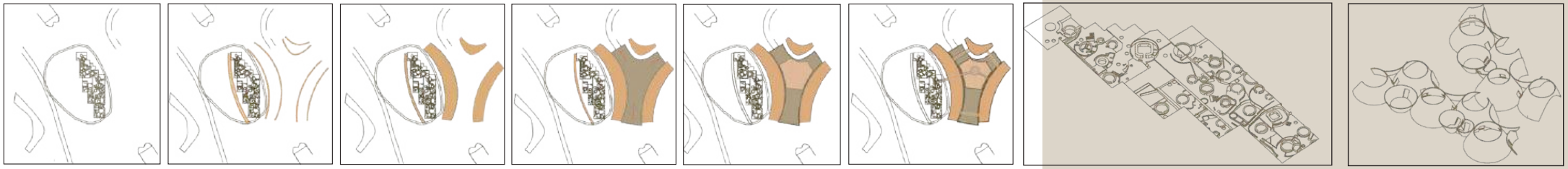
The Erdao Jingzi Ancient Village Ruins, discovered in 2009 in Inner Mongolia, China, have been designated as a national key cultural heritage site. The village houses, built from clay, are highly susceptible to erosion and damage from wind and water. Therefore, a massive canopy needs to be constructed above the ruins to protect the site. Additionally, a museum is required to house and display some of the artifacts uncovered during excavation. The design is divided into three distinct parts, which are connected by a corridor bridge, surrounding a central plaza. Upon entering the building, visitors follow a natural circulation route that takes them around all three sections before they reach the ruins for a visit. Afterward, they return to the plaza to conclude their journey. The overall form of the museum is inspired by the circular shape of the ancient village ruins, creating a contrast between the modern architectural design and the old heritage site. This concept enhances the narrative and connection between the past and the present, offering visitors a unique experience as they move through the space.

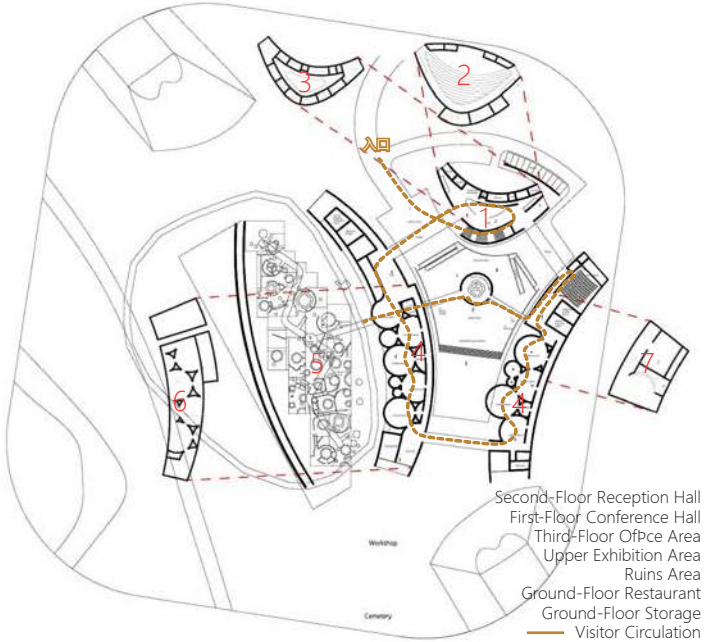
Project 15 - Erdaojingzi Heritage Museum Design

Melbourne University

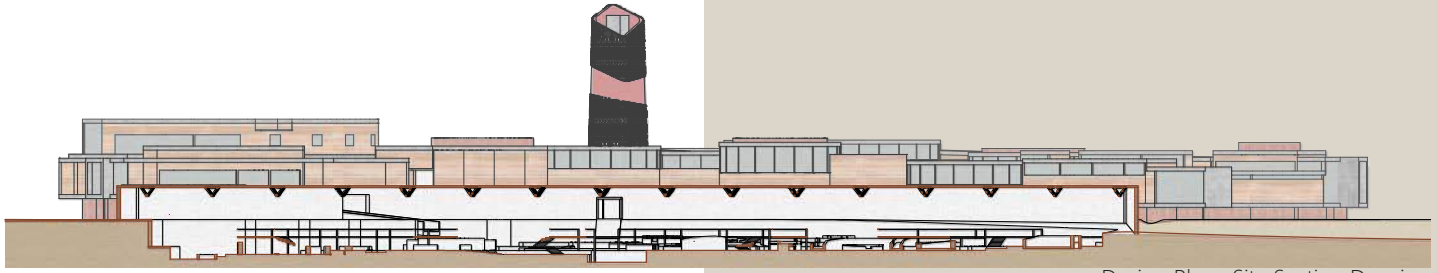
Melbourne, Victoria, Australia

Concept Design and Form

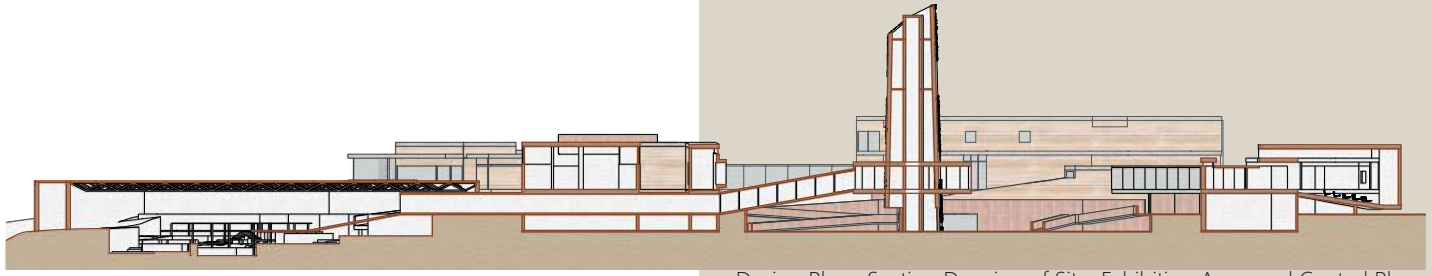




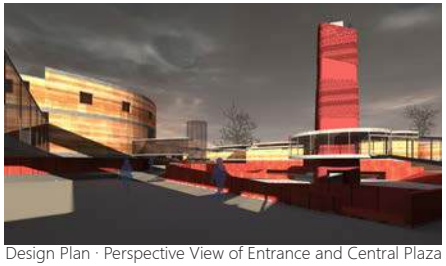
Second-Floor Reception Hall
First-Floor Conference Hall
Third-Floor Ofɒce Area
Upper Exhibition Area
Ruins Area
Ground-Floor Restaurant
Ground-Floor Storage
Visitor Circulation



Design Plan · Site Section Drawing



Design Plan · Section Drawing of Site, Exhibition Area, and Central Plaza



Design Plan · Perspective View of Entrance and Central Plaza

Design Plan · Perspective View of Reception Hall

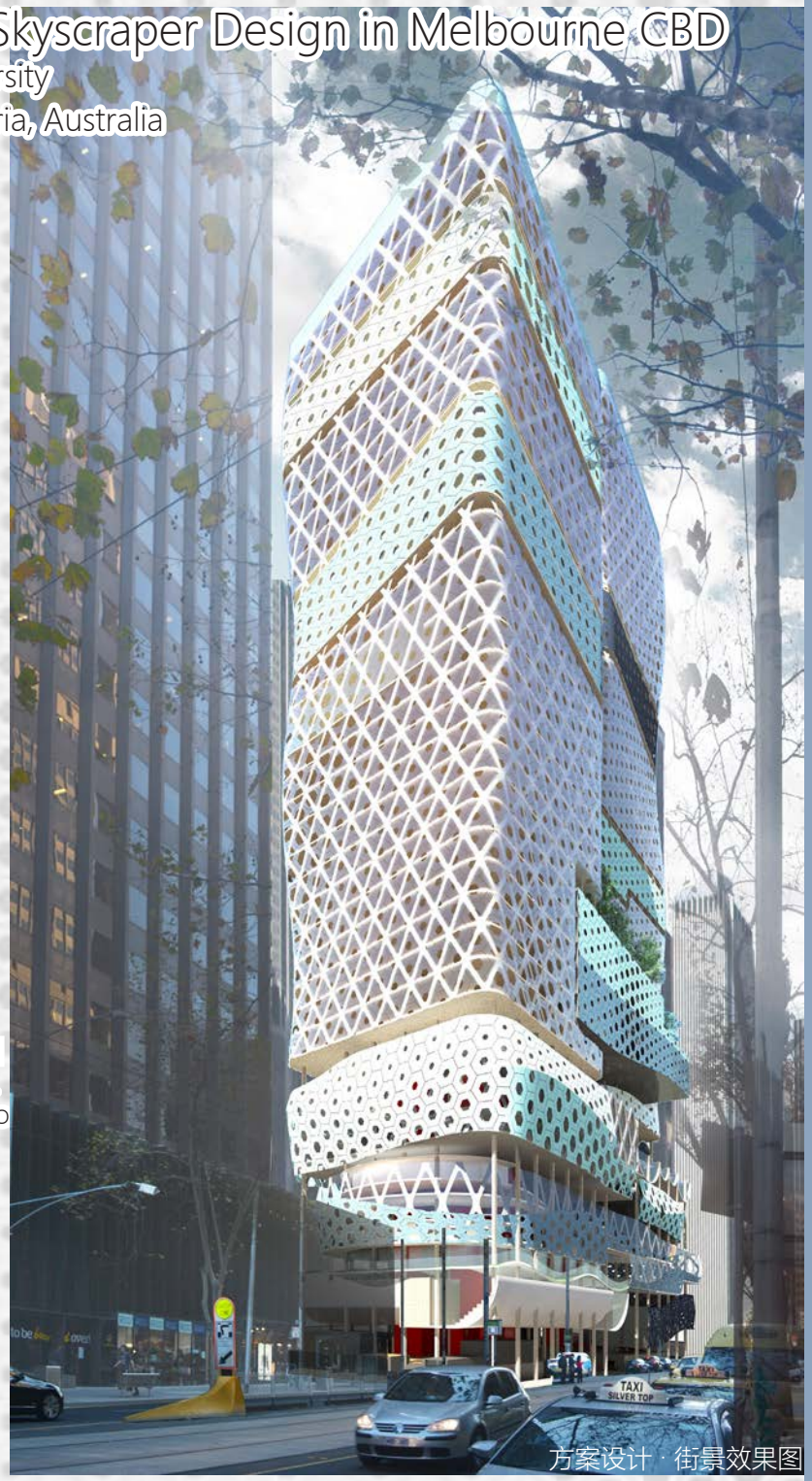
Design Plan · Perspective View of Ruins Area

Design Plan · Perspective View of Exhibition Area

Design Plan · Aerial View

Project 16 - Skyscraper Design in Melbourne CBD

Melbourne University
Melbourne, Victoria, Australia

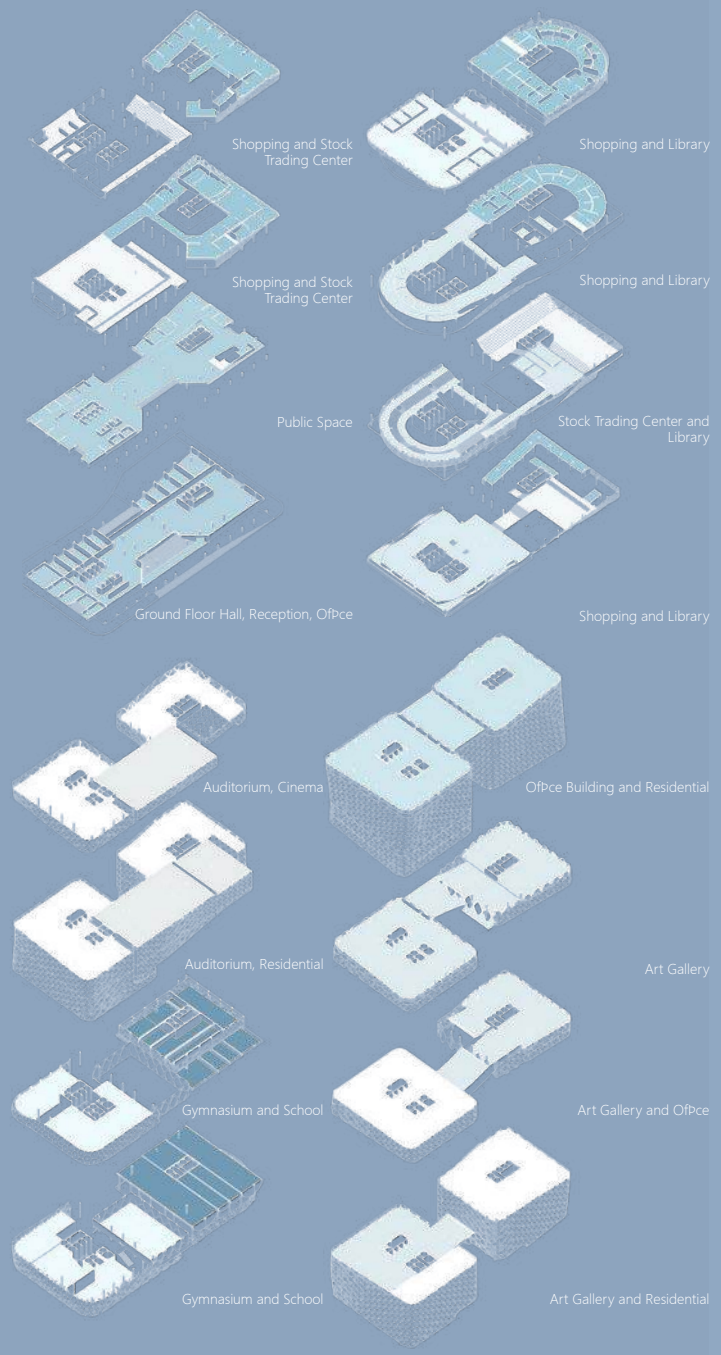


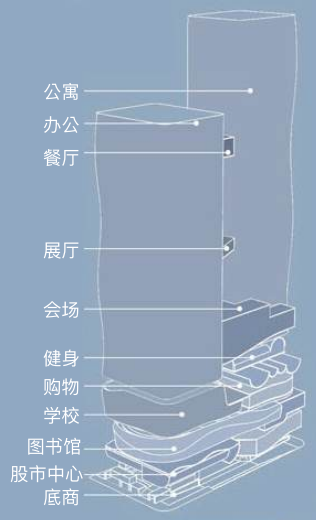
方案设计 · 街景效果图

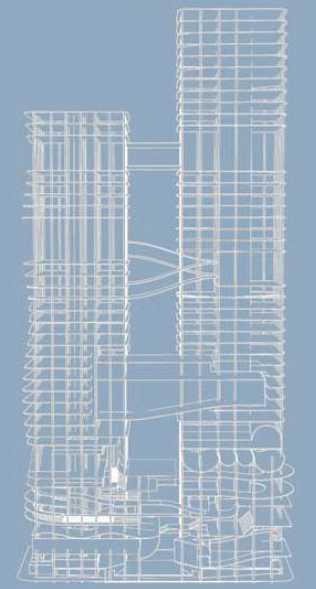
Project Overview

This project, part of a University of Melbourne graduate course, focuses on creating a multifunctional building where residents can live and work without leaving. The design uses Rhino and Grasshopper to generate diverse facades attached to various functional volumes. Inclined ßoor slabs connect different levels, dissolving traditional boundaries, similar to Rem Koolhaas's approach.

Functional Decomposition







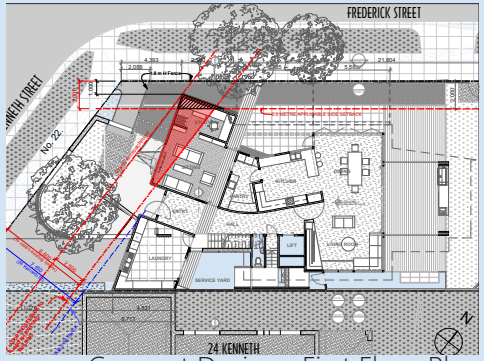
功能混合

该项目参考了 Rem Koolhaas 的不连续的连续性，通过将不同的功能体块进行变形，将不同功能串联起来。打破每个体块的边界，将不同功能混合起来，在同一个综合体内实现。

Project 17 - Modernism Villa Design

Rationale Design
Melbourne, Victoria, Australia

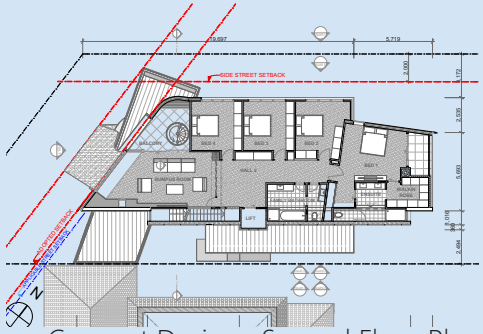
Concept Design · Street View



Concept Design · First Floor Plan

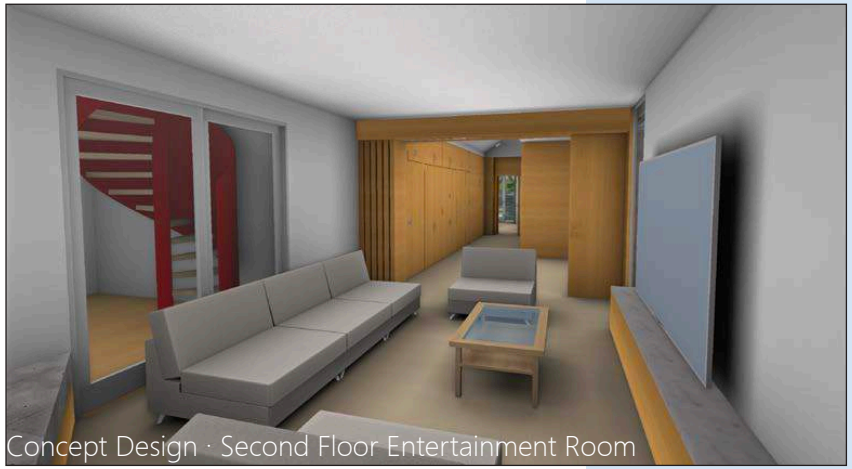
Concept Design · Main Entrance

Concept Design · Backyard



Concept Design · Second Floor Plan

Concept Design · Living Room, Kitchen, and Dining Room



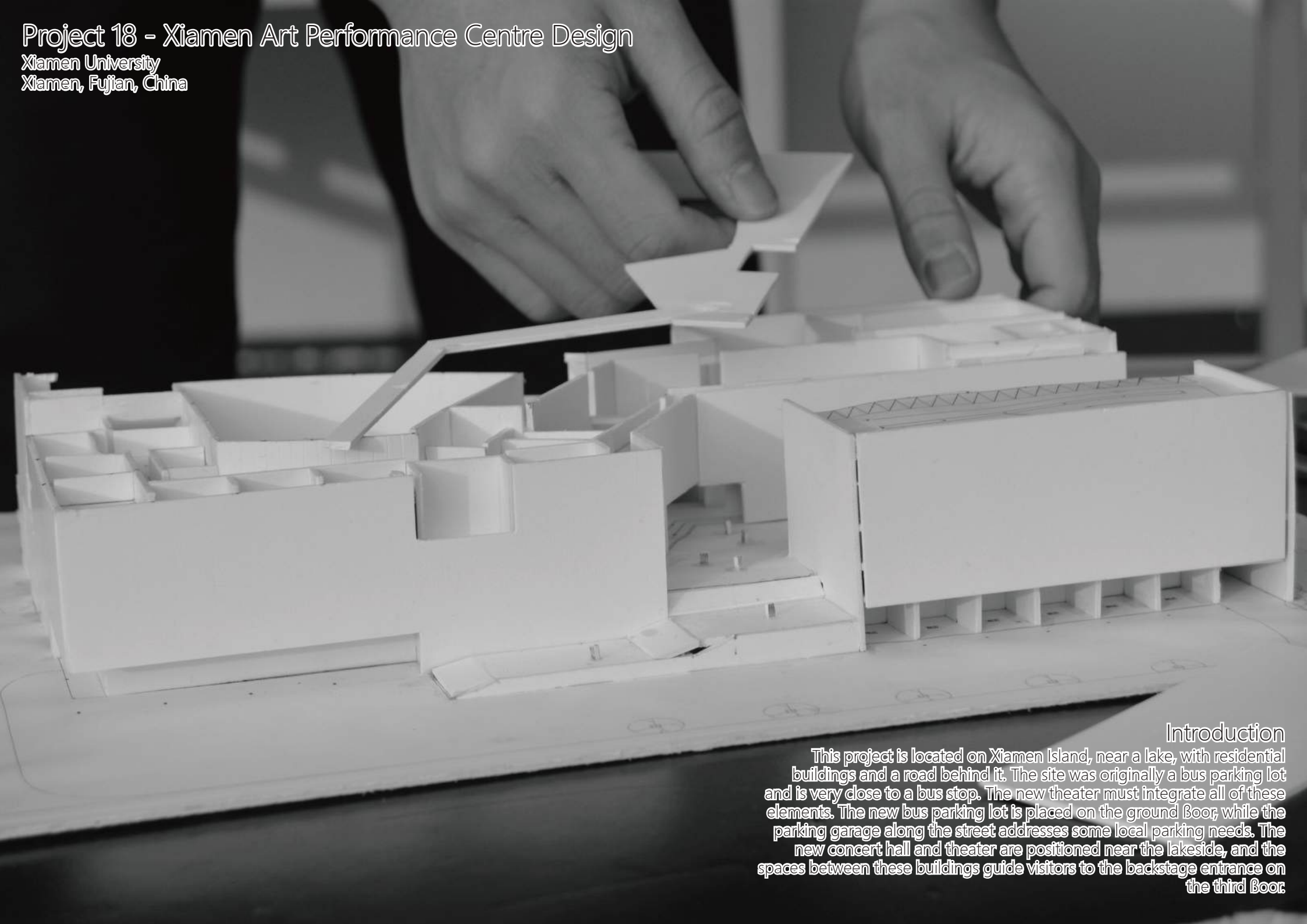
Concept Design · Second Floor Entertainment Room

Introduction

This project is a large villa with a swimming pool in the backyard. The basement has parking for seven cars. The building features a Þsh-scale metal facade, with the activity room and secondary bedroom at the front. On the Þrst ßoor, the reception and laundry rooms are at the front, and the living, kitchen, and dining areas are at the back, near the pool, with a cantilevered barbecue area in between. The second ßoor has an entertainment room and a spiral staircase leading to the rooftop.

Project 18 - Xiamen Art Performance Centre Design

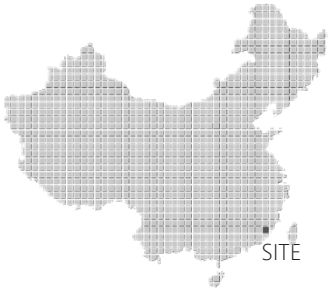
Xiamen University
Xiamen, Fujian, China



Introduction

This project is located on Xiamen Island, near a lake, with residential buildings and a road behind it. The site was originally a bus parking lot and is very close to a bus stop. The new theater must integrate all of these elements. The new bus parking lot is placed on the ground ßoor, while the parking garage along the street addresses some local parking needs. The new concert hall and theater are positioned near the lakeside, and the spaces between these buildings guide visitors to the backstage entrance on the third ßoor.

场地介绍

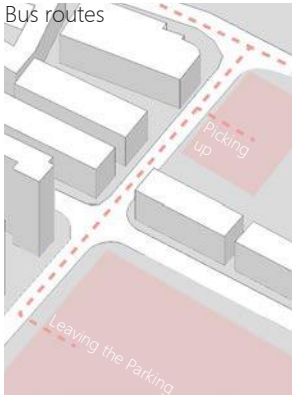


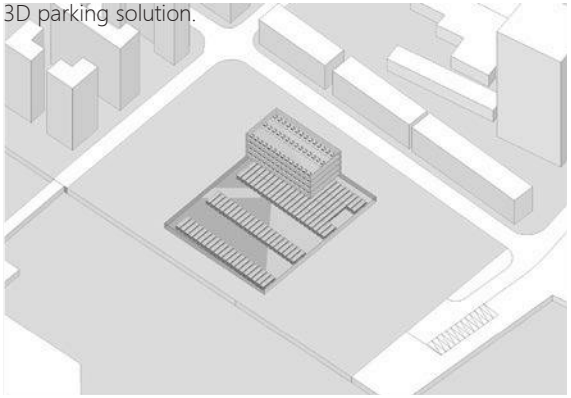
The site is located by Yundang Lake Park on Xiamen Island, with scenic views and easy access to transportation. Previously a bus terminal parking lot, it requires a large space for vehicles.
The new theater design must accommodate this, while also solving the nearby residential area's parking issues, improving local living conditions.

Local Issues and Solutions:

Illegal Parking Issue

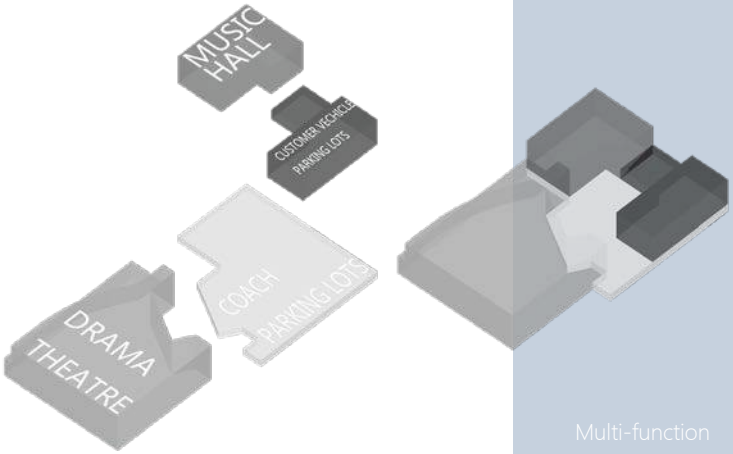
Current situation of bus parking





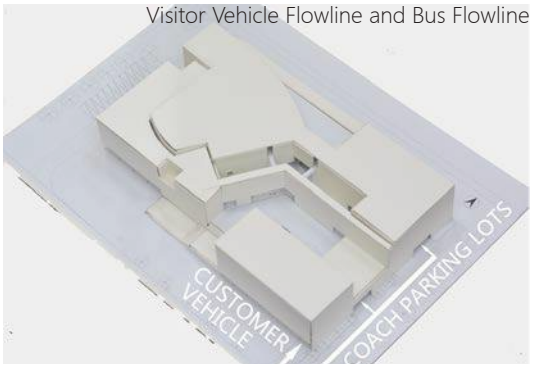
Illegal parking has become a problem and severely impacts the city's appearance. Due to illegal parking, the streets become narrow and congested, often causing trafÞc jams. The solution to this issue is to build a vertical parking garage to alleviate street congestion.

Space Composition



The new performing arts center consists of four parts: the theater, concert hall, private parking garage, and bus parking lot. Each part's geometric form follows its function. The main theater has a fan-shaped design, surrounded by various rooms that serve it. The concert hall and parking garage are both rectangular, with the bus parking located on the lowest level. These four parts create a central space, forming a theater atrium. Visitors or citizens can access the atrium from different directions via corridors or stairs, with the aim of providing a recreational gathering place for the public.

Multi-function



Visitor Vehicle Flowline and Bus Flowline

Visitor Flowline

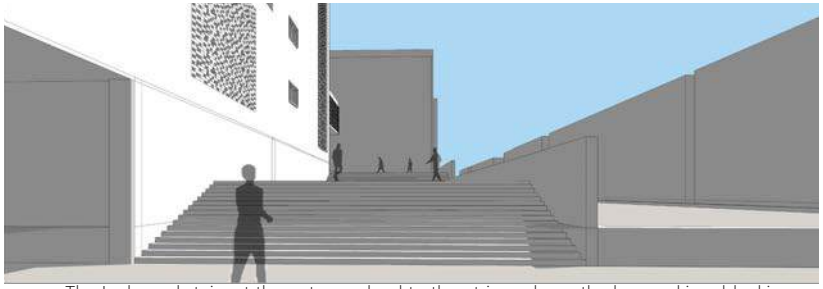
Perspective from the opposite side of the lake

The design includes three distinct circulation paths, ensuring that they do not interfere with each other. Theater-goers will not be disturbed by buses from the ground-ßoor parking lot, and private cars will not conßict with buses on the street, preventing trafÞc congestion. The most exciting aspect of the design is the visitor circulation path. This ßow is formed by the compression of these geometric shapes. The theater entrance is oriented away from the street, facing the lake, which elongates the path from the street to the theater entrance. This creates anticipation for visitors and allows them to enjoy the lake view from the viewing platform and waiting lobby before entering the theater and concert hall.

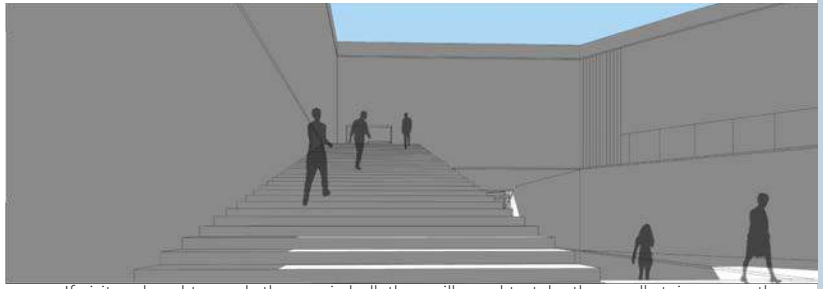
Narrative Journey - Circulation

1 As visitors or pedestrians pass by the theater, they will see the theater's shape. The gap between the two volumes hints at the entrance and the beginning of the circulation path.

8 In the theater waiting hall, people can also enjoy views of Yundang Lake. The upper-level lobby connects the second-ßoor theater seating and the music hall entrance.



2 The L-shaped stairs at the entrance lead to the atrium above the bus parking, blocking the direct line of sight.

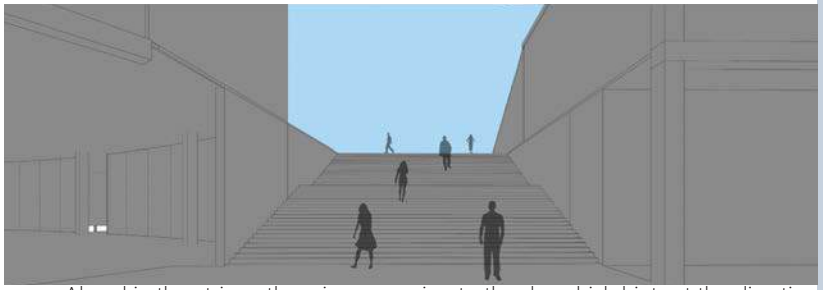


7 If visitors head towards the music hall, they will need to take the small staircase on the right to reach the upper-level entrance of the music hall and the second-ßoor entrance of

3 After turning left, visitors will see a beam bridge overhead, marking the boundary of the courtyard and entrance, with other visible entrances leading to different areas.

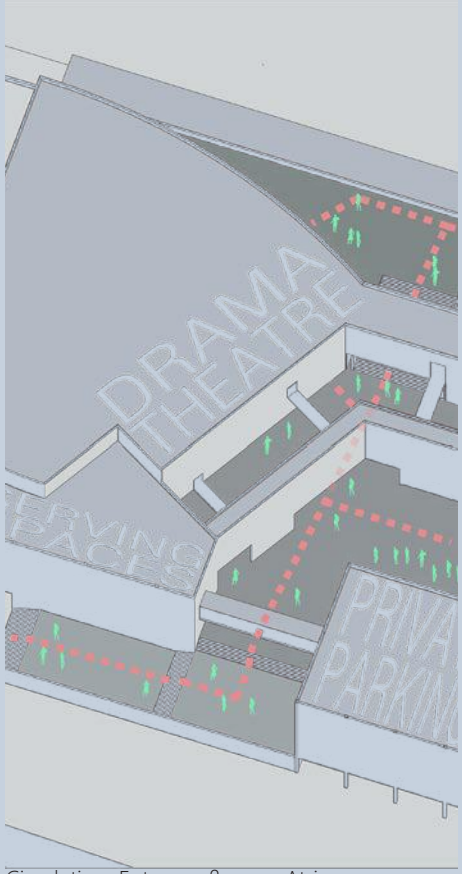
6 Upon reaching the platform, visitors will pause to enjoy the view of Yuan Tang Lake ahead. They can then choose to enter the music hall or theater by either turning left or right.

4 In the atrium, one wall serves as the screen for an outdoor cinema, allowing people in the atrium or in cars in the parking garage to watch the movie.



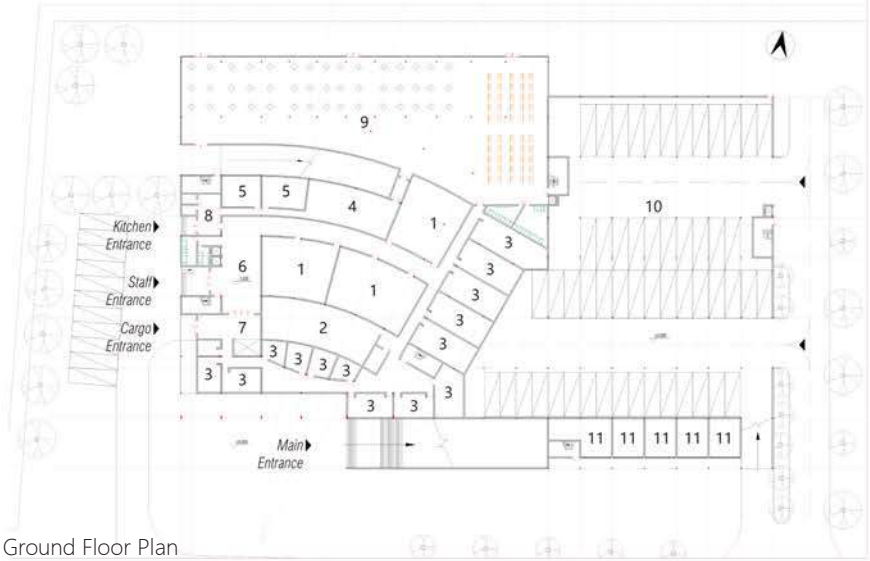
5 Ahead in the atrium, there is an opening to the sky, which hints at the direction to the theater and music hall.

Flow Diagram

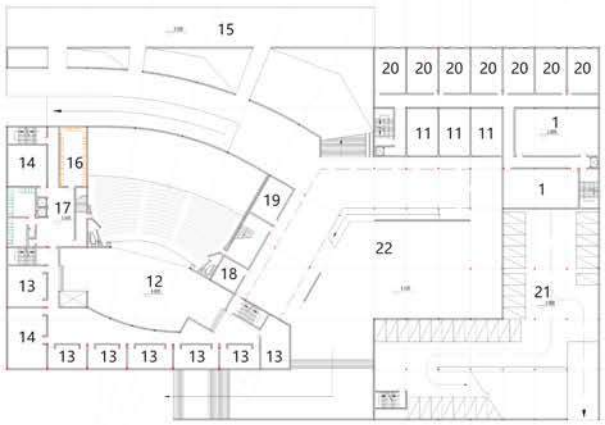


Circulation: Entrance ßow — Atrium — Landscape platform — Waiting hall

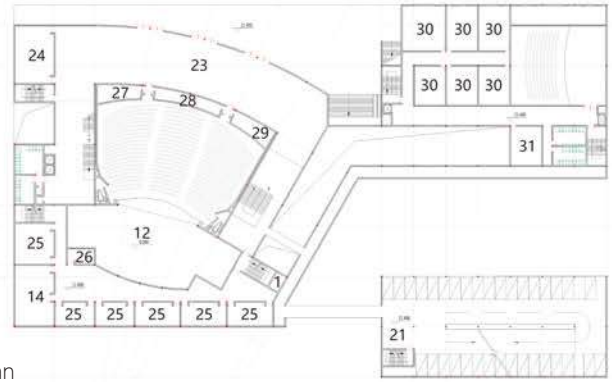
Drawings



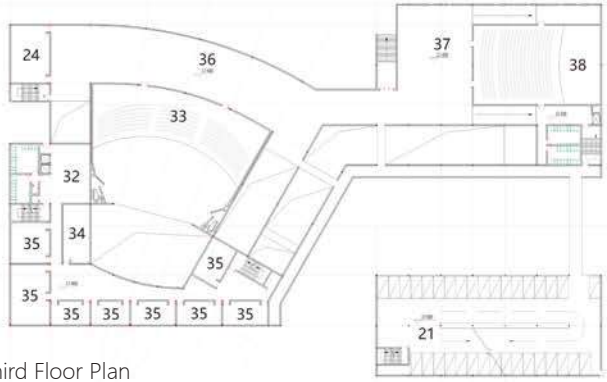
Ground Floor Plan



First Floor Plan



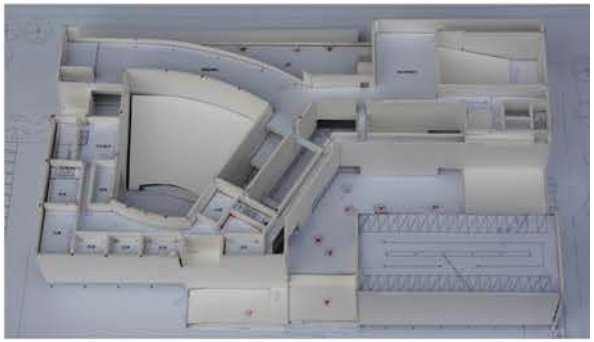
Second Floor Plan

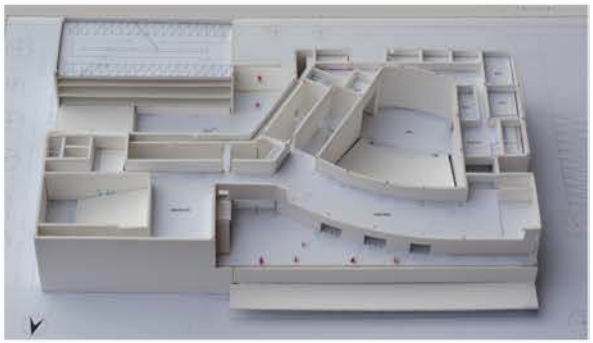


Third Floor Plan

Cross Section

Physical Model

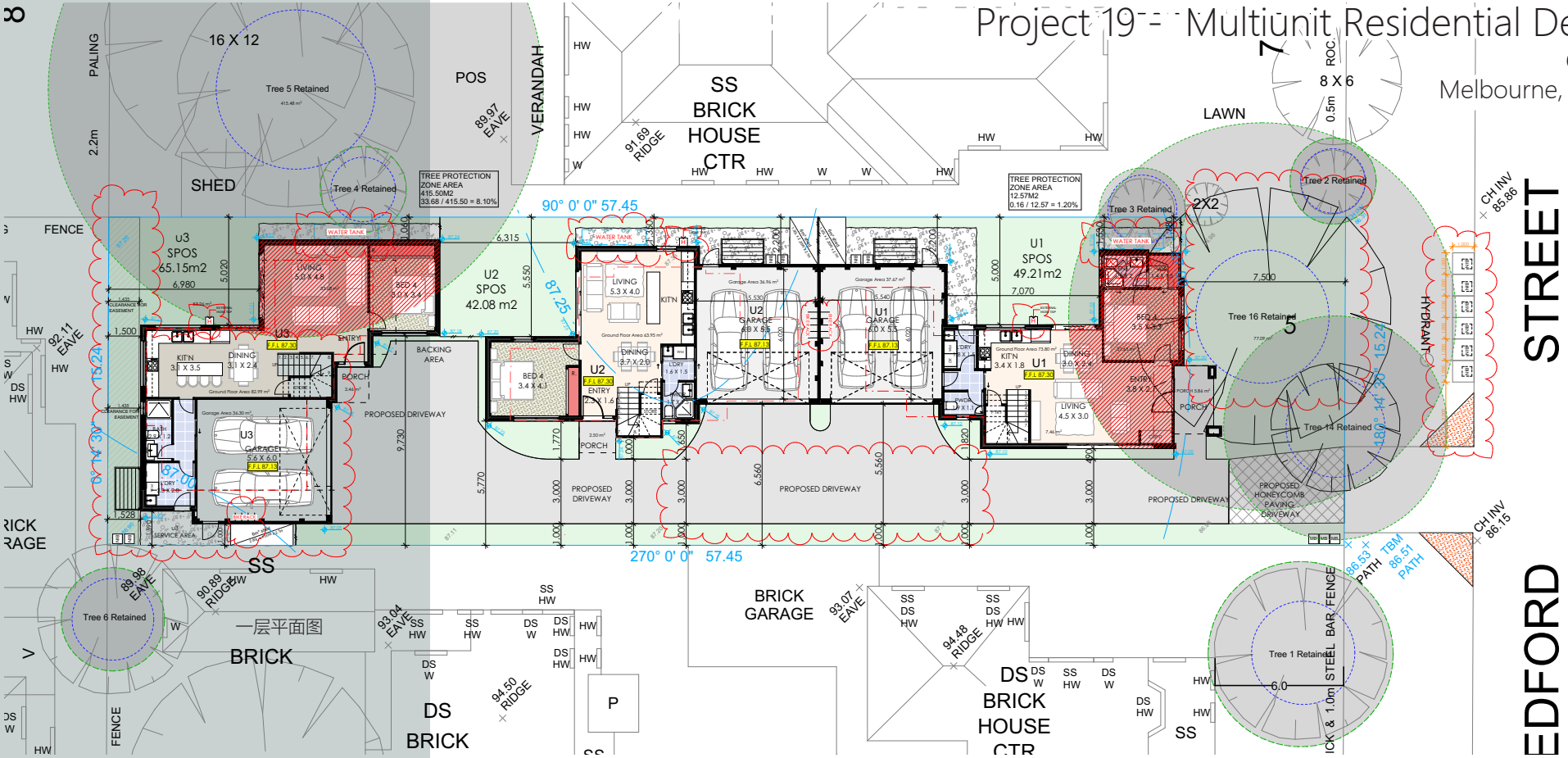


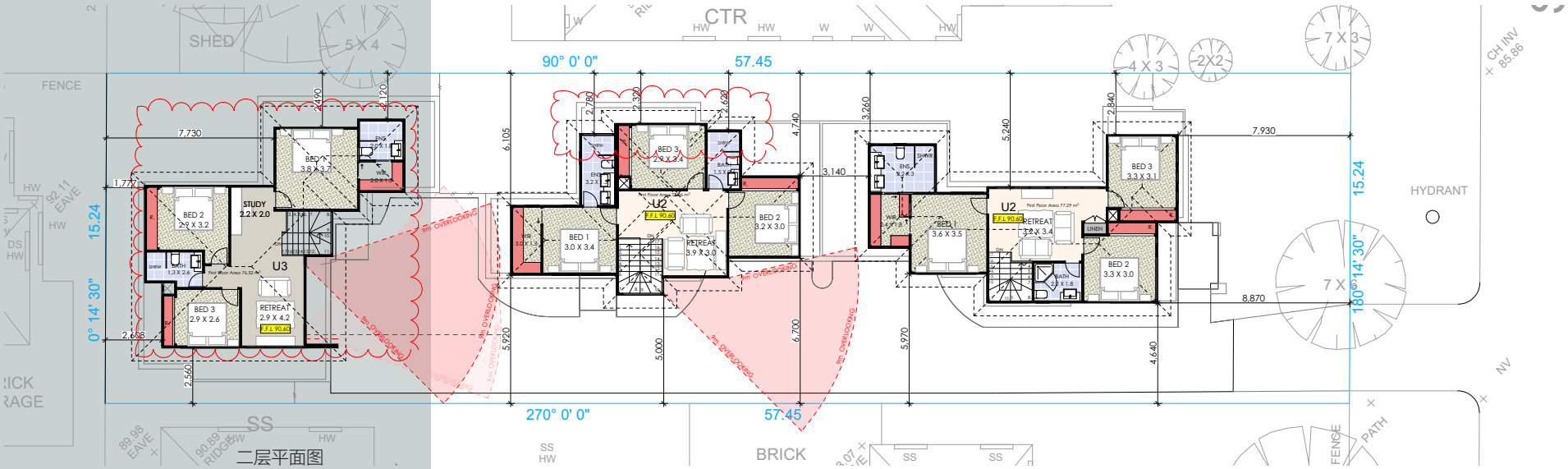


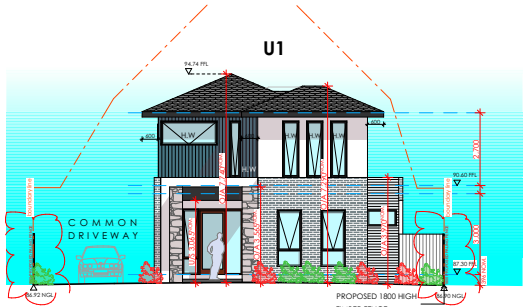
1 Storage Room
2 Stage Lift
3 Mechanical Room
4 Kitchen
5 Food Storage
6 Staff Hall
7 Goods Entrance
8 Kitchen Entrance
9 Streetfront Restaurant
10 Bus Parking Lot
11 Shop
12 Main Stage and Auditorium
13 Dressing Room
14 Rehearsal Room
15 Platform
16 Lounge
17 Backstage Hall
18 Cloakroom
19 Ticket Ofþce
20 Equipment Room
21 Passenger/Resident Parking
22 LotAtrium Plaza
23 Waiting Room
24 Smoking Room
25 Makeup Room
26 Director's Control Room
27 Lighting Control Room
28 Audio-Visual Projection Room
29 Sound Control Room
30 Makeup Room
31 Instrument Storage Room
32 Staff Entrance Hall
33 Theater Second-Floor Seating
34 Meeting Room
35 Ofþce
36 Theater Waiting Hall
37 Concert Hall Waiting Hall
38 Concert Hall

Project 19 - Multiunit Residential Development

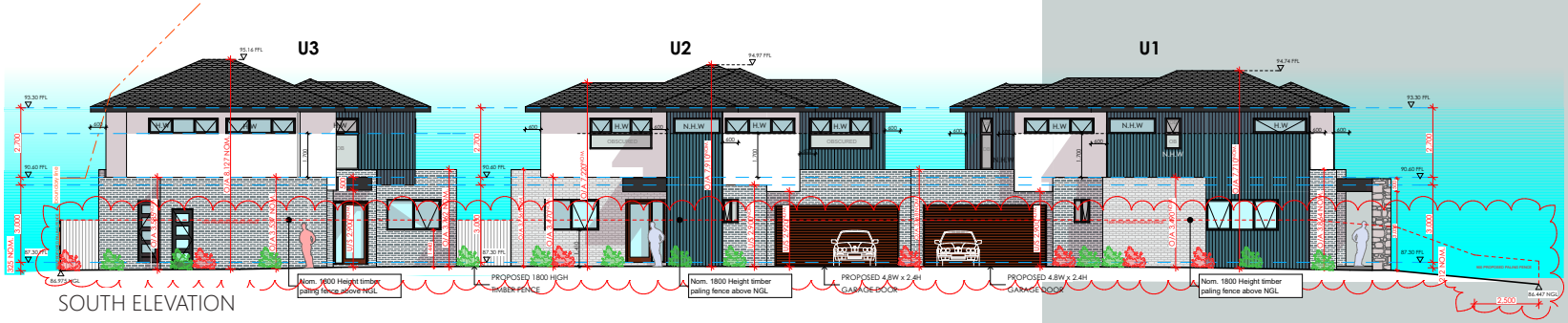
CS Town Planning
Melbourne, Victoria, Australia



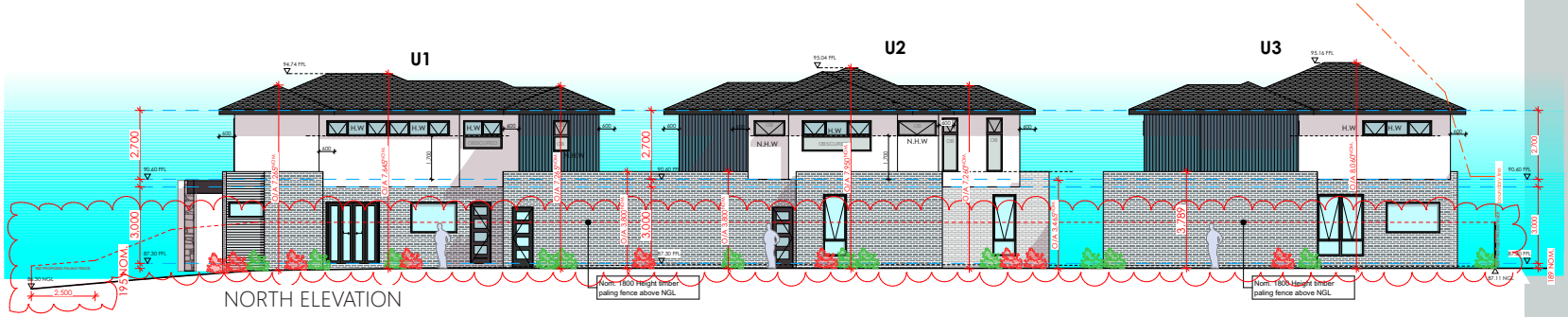




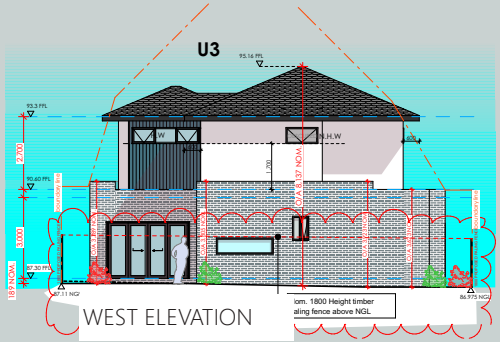
EAST ELEVATION



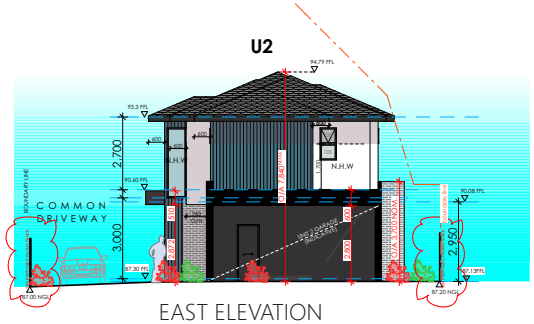
SOUTH ELEVATION



NORTH ELEVATION



WEST ELEVATION



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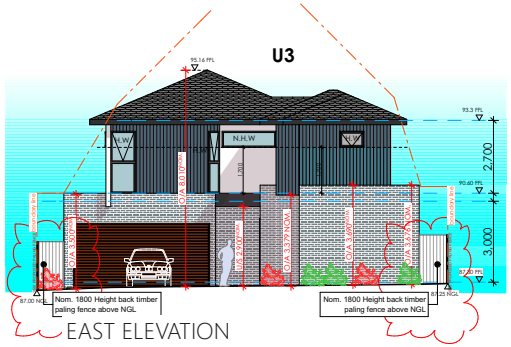

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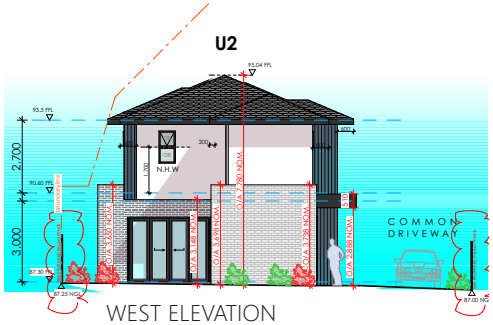
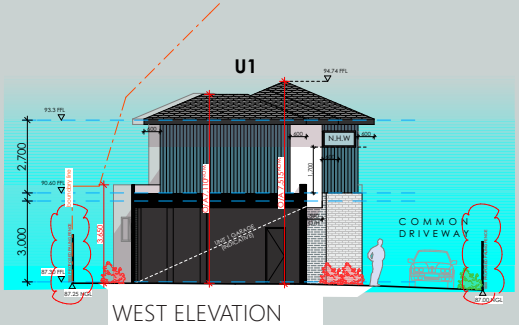


WEST ELEVATION



WEST ELEVATION

NOTE
DOUBLE GLAZE ALL WINDOWS AND DOORS FOR 3 UNITS TO MEET ENVIRONMENT SUSTAINABLE DESIGN REPORT AND ENERGY REPORT

NOTE
THREE 2500L WATER TANKS PROVIDED TO EACH UNIT AT SPOS.
REFER TO ESD REPORT

NOTE
PROVIDE INTERNAL LED FITTINGS TO EACH UNIT AND NOT EXCEED MAX 4W PER M²

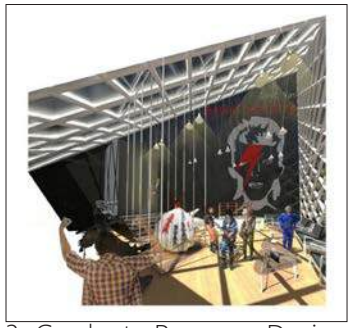
proposed materials & finishes schedule:

bw	brick work	crf	Concrete roof tiles	wf1	Wall finish 1	Wall Finish2	Wall Finish 3	driveway finish	gd	garage door
	Boral - Nova - Domino		Charcoal		Colorbond - Surfmist	Vertical Boards Blue metal scyon	Weatherboard - Paperbark	Coloured Concrete - Charcoal		Stained Timber

20 - Other Projects

1. Residential Development Project

2. French-Style Residential Design


3. Graduate Program Design

4. Solar Decathlon Residential Design

5. Bachelar Program Design: Kindergarten

6. Undergraduate Program Design: Residential Complex

7. Marker Painting

8. Watercolor Painting

9. Photography