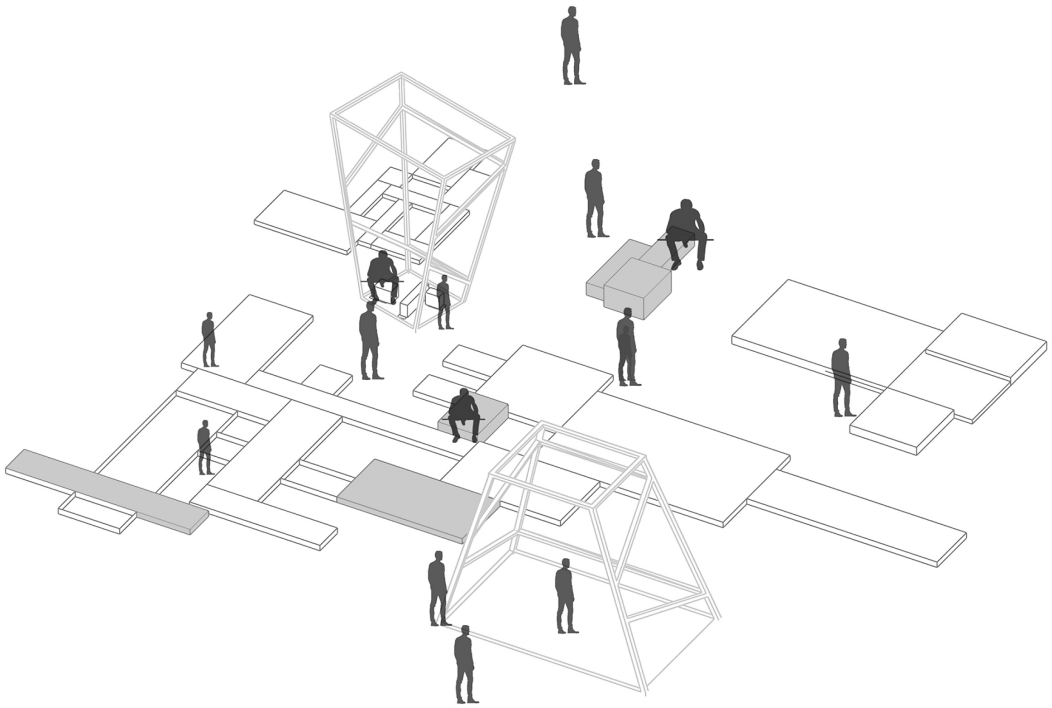


architecture

portfolio

Sam Wu

Selected Works |2020 - 2025



sam wu

graduate of architecture

samwu741@gmail.com
linkedin.com/in/sam-wu-60b698219
0406 362 107
South Brisbane, QLD

An experienced architectural graduate with a Master's degree in Architecture and three years of overseas experience from the conceptual design, schematic design, design development, statutory submissions, and to documentation in Revit and AutoCAD environment. More recently, I have expanded my expertise in the Australian renewable energy sector, contributing to feasibility studies and technical reporting for large-scale projects. Passionate about place-making and revitalization, I focus on designing meaningful, community-oriented spaces while ensuring practicality and sustainability. I strive to deliver innovative and thoughtful design solutions for every project.

EDUCATION

Master of Architecture
University of Queensland | Brisbane | Australia | 2020 - 2022

Bachelor of Science in Architectural Studies
City University of Hong Kong | Hong Kong | 2012 - 2016

PROFESSIONAL EXPERIENCE

Architectural Fellow **Feb 2025 -**
CO-architecture **| Perth**
An Australian architecture/interior platform to connect homeowners, businesses, and design professionals. Evolving beyond networking, it now offers design services directly to its members—an experimental business model fostering collaboration.

- Developed full working sets for a boutique hotel at King St Precinct at DD Stage.
- Produced revit model based on Hassell and Plus Architecture workflow.
- Completed working drawing set under supervision of registered architects.

Graduate of Architecture **Apr 2022 - Oct 2024**
Integrated Energy Pty Ltd| **Perth**
Integrated Energy is an engineering firm specialising in renewable energy consulting. The firm is engaged in hydrogen-related projects across Australia and Southeast Asia.

- Created floor plans, elevations, sections, and construction details using AutoCAD at the schematic design (SD) stage for DA submission.
- Developed project plans and fedreal funding application packages.
- Produced conceptual and schematic designs using SU, Rhino, AutoCAD, and Lumion.
- Produced working drawings for renewable energy civil components.
- Estimated project costs for civil and architectural works.

Architectural Assistant **Jul 2018- Feb 2020**
Llewelyn Davies **| Hong Kong**
An international multidisciplinary firm specialising in architectural, planning, and interior design services, with expertise in large-scale public building projects.

- Developed conceptual designs and diagrams using Rhino, V-Ray, and Adobe CC.
- Assisted in project design and documentation, creating floor plans, elevations, sections, and details using AutoCAD across SD, DD, and CD stages.
- Conducted statutory compliance checks to ensure design adherence to regulations.
- Attended site meetings from PRE to CD stages and participated in CA site inspection

Graduate of Architecture **Nov 2016 - Jun 2018**
Anna Kwong Architects & Associates| **Hong Kong**
A specialised practice led by Anna Kwong, with 40+ years of expertise in historic preservation, renovation, and religious architecture.

- Assisted in the DD and CD stages for a high-rise industrial development in AutoCAD.
- Attended site meetings across all project stages, from PRE to CA.
- Developed conceptual and schematic designs using Rhino and V-Ray.
- Led feasibility studies for elderly home in collaboration with university researchers.

CORE SKILLS

- Revit
- AutoCAD
- SketchUp
- Adobe Suite
- Rhino + GH + V-ray
- Lumion
- D5 Render
- QGIS/ArcGIS
- Python
- Nano Banana AI rendering generation
- LLM (OpenAI/ Gemini)
- GH ladybug tools

SOFT SKILLS

- Digital autonomy
- Collaboration
- Time management
- Leadership
- Productivity & Efficiency
- Community engagement
- Empathy
- Cultural awareness
- Client Management
- Work enthic
- Interpersonal skills

AWARDS & EXTRA-CURRICULAR

Finalist - One Drawing Challenge | Architizer
2022, *Aqueous Rhizome*
Winner - Best Final Year Project | City University of Hong Kong
2016, Honours Dissertations - *Accessibility of Elderly Home*

PROFESSIONAL AFFILIATIONS

Australian Institute of Architects | Australia
Graduate Member , 2022 -
Hong Kong Institute of Architects | Hong Kong
Graduate Member , 2016 -

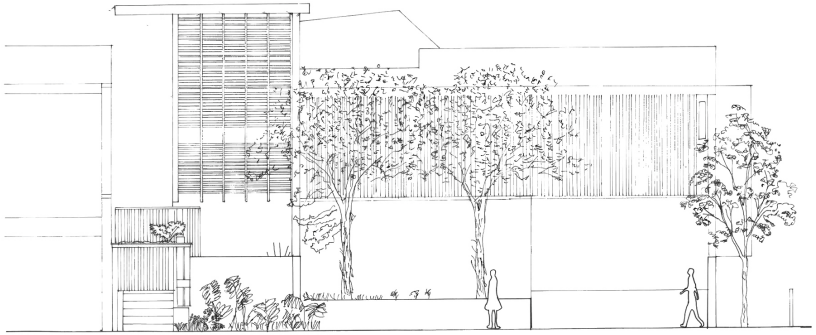
AFFILIATIONS & EXTRA-CURRICULAR

CO-academy | Architectural Fellow
CO-architecture Program | 2025 -
Received training in networking, technical skills, personal branding and resume & portfolio review.
Participated in King St Precinct project under supervision of architect Kevin Mitchem and Rafid Hai

Sculpture by the Sea, Erica Zaino
Sculpture and Registered Architect in Perth | Feb 2024

- Reviewed the structural integrity of the sculpture.
- Recommended locally sourced materials with appropriate specifications.

contents



new farm, qld

professional works

01. **boutique hotel**
perth, wa | hospitality

02. **special school**
tuen mun, hong kong | institutional

03. **renewable energy projects 2022-2024**
multiple sites in wa and nsw | energy infrastructure/ utilities / retail

04. **public toilet renovation**
tuen mun, hong kong | public architecture

05. **school library renovation**
tuen mun, hong kong | institutional

06. **clt vertical farm**
kai tak, hong kong | mixed-use high rise | competition

academic works

07. **chandigarh regeneration**
chandigarh, india | urban design | competition

08. **almshouse**
brisbane, australia | residential

09. **sydney central campus**
sydney, australia | institutional

professional works

01

BOUTIQUE HOTEL IN KING ST MALL

Perth, WA | DD Working Drawings in Revit 2024 | 2025 - ongoing |
Client: Annomyous owner of multiple properties along King St
Architect: Kevin Mitchem & Rafid Hai (Hassell)

A hybrid hotel-retail experience within an adaptive reuse site in Perth. The repurposed building, 29 - 31 King St, blends boutique accommodation with shoppable design to attract a new audience within the existing architectural shell. It aims to revive the cooled precinct following the departure of luxury brands after covid pandemic, and re-establish as a vibrant destination for affluent visitors.

My contribution on this project:

- measured the existing building structure and modelled the iconic facade.
- created all revit families and view templates.
- competed the revit model in DD stage.

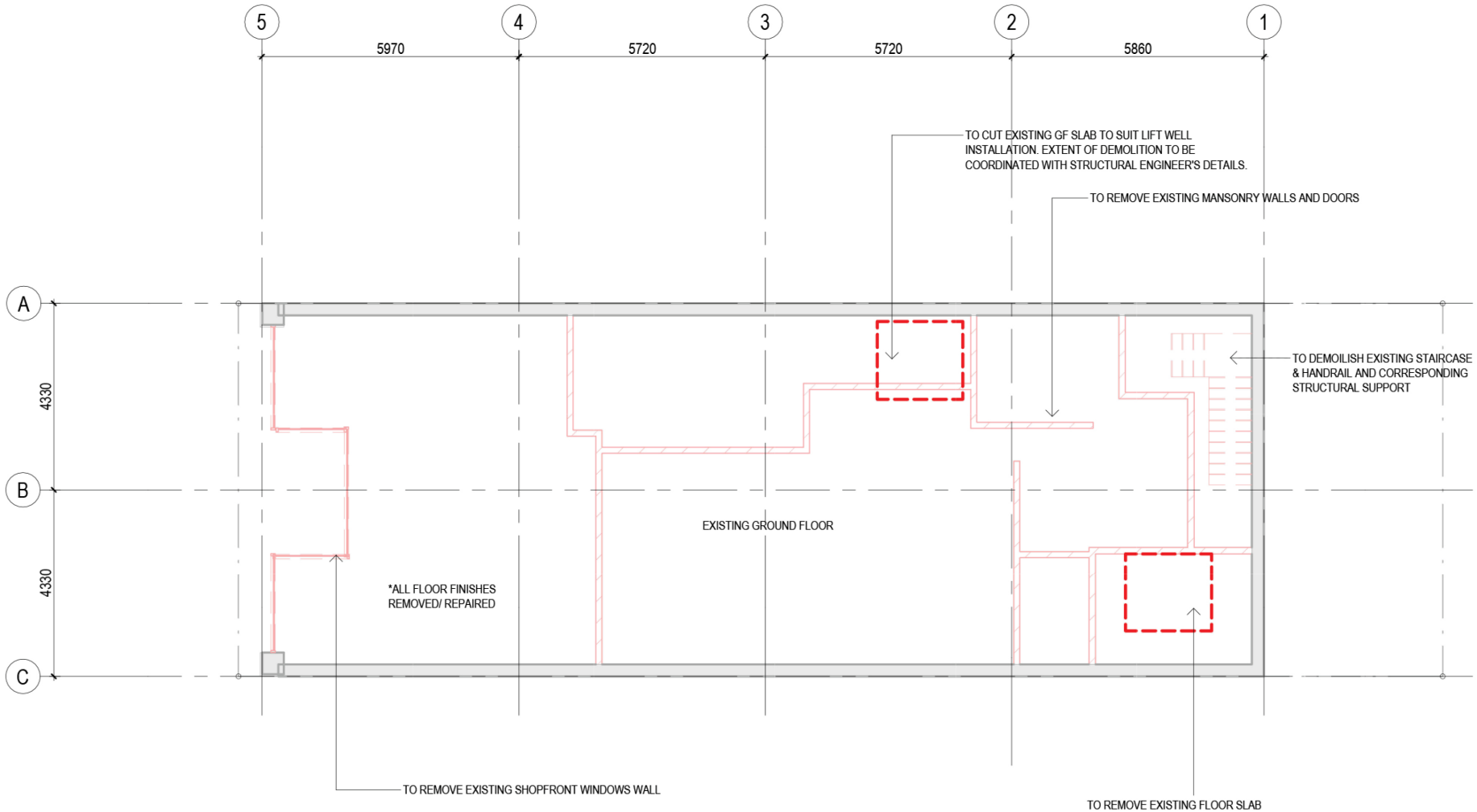


solo

A0090 DEMOLITION PLAN - BASEMENT, GF, 1F, RF SHEET 1

SCALE: 1 : 100 @ A3

CO-architecture™



1 / 4.05 GROUND LEVEL Demolition
Scale: 1 : 100

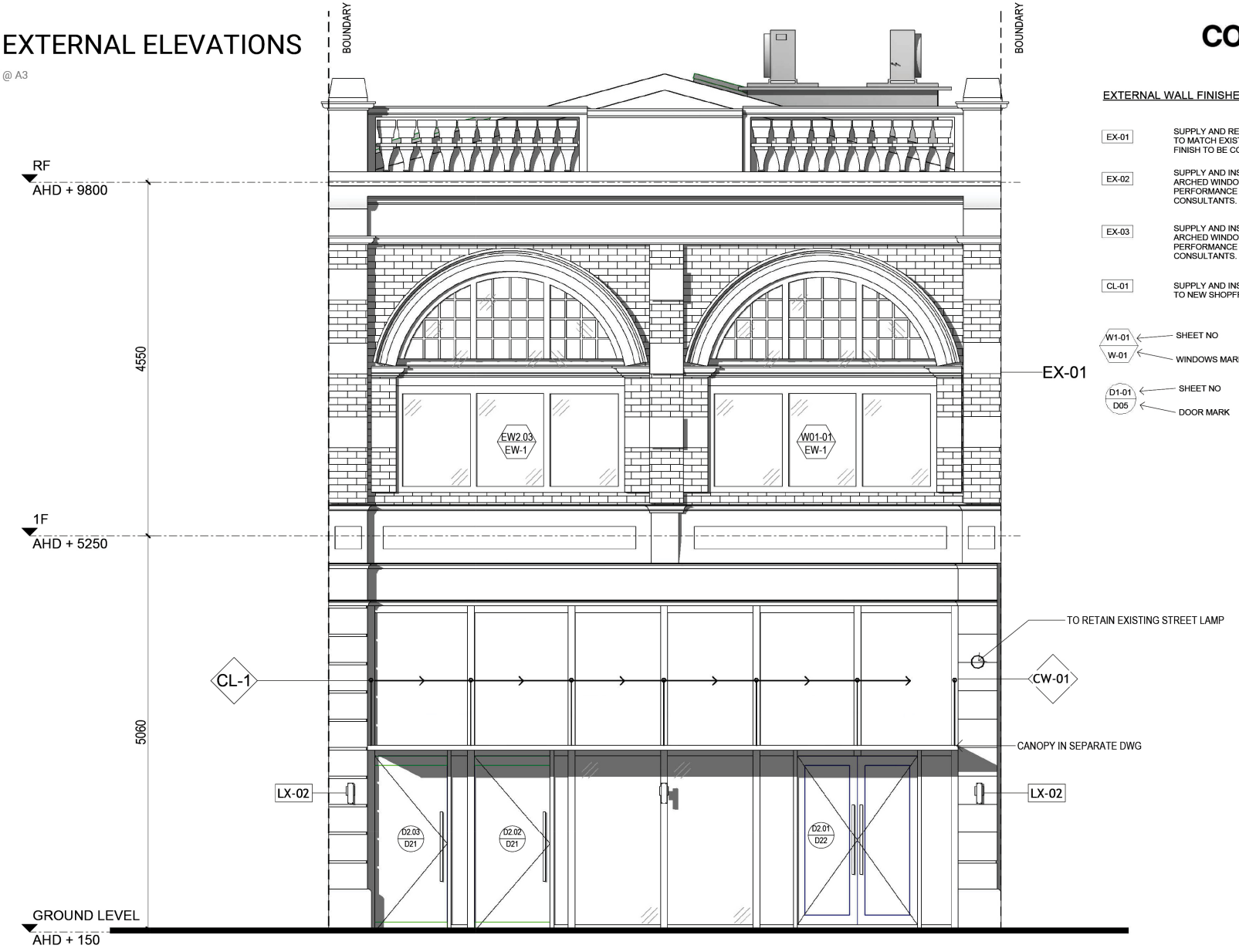
INTERNAL MANSONRY WALLS TO BE REMOVED

EXISTING CAVITY BRICK WALL TO BE RETAINED

A0200 EXTERNAL ELEVATIONS

SCALE: As indicated @ A3

CO-architecture™



EXTERNAL WALL FINISHES LEGEND

EX-01	SUPPLY AND REPAINT EXTERNAL WALLS WITH WHITE PAINT TO MATCH EXISTING WALL SURFACES. COLOUR CODE AND FINISH TO BE CONFIRMED.
EX-02	SUPPLY AND INSTALL NEW GLAZING UNITS TO EXISTING ARCHED WINDOW. GLAZING TYPE AND THERMAL PERFORMANCE TO BE CONFIRMED IN CONSULTATION WITH CONSULTANTS.
EX-03	SUPPLY AND INSTALL NEW GLAZING UNITS TO EXISTING ARCHED WINDOW. GLAZING TYPE AND THERMAL PERFORMANCE TO BE CONFIRMED IN CONSULTATION WITH CONSULTANTS.
CL-01	SUPPLY AND INSTALL NEW ALUMINIUM CLADDING SYSTEM TO NEW SHOPFRONT BLOCK WALL

W1-01 / W-01 — SHEET NO / WINDOWS MARK

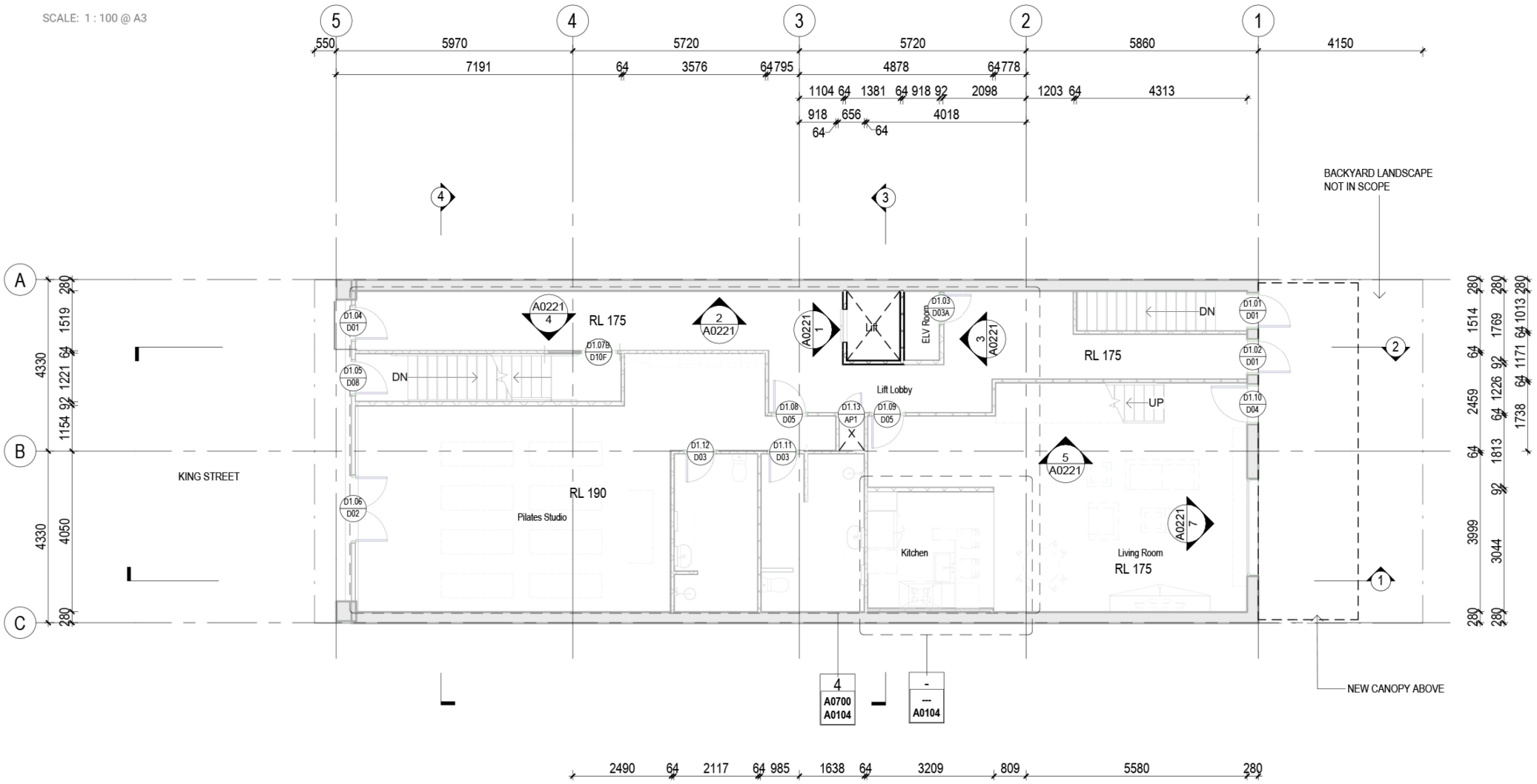
D1-01 / D05 — SHEET NO / DOOR MARK

1 / A0101 ELEVATION 1
Scale: 1 : 50

A0104 GA PLAN - GF

SCALE: 1 : 100 @ A3

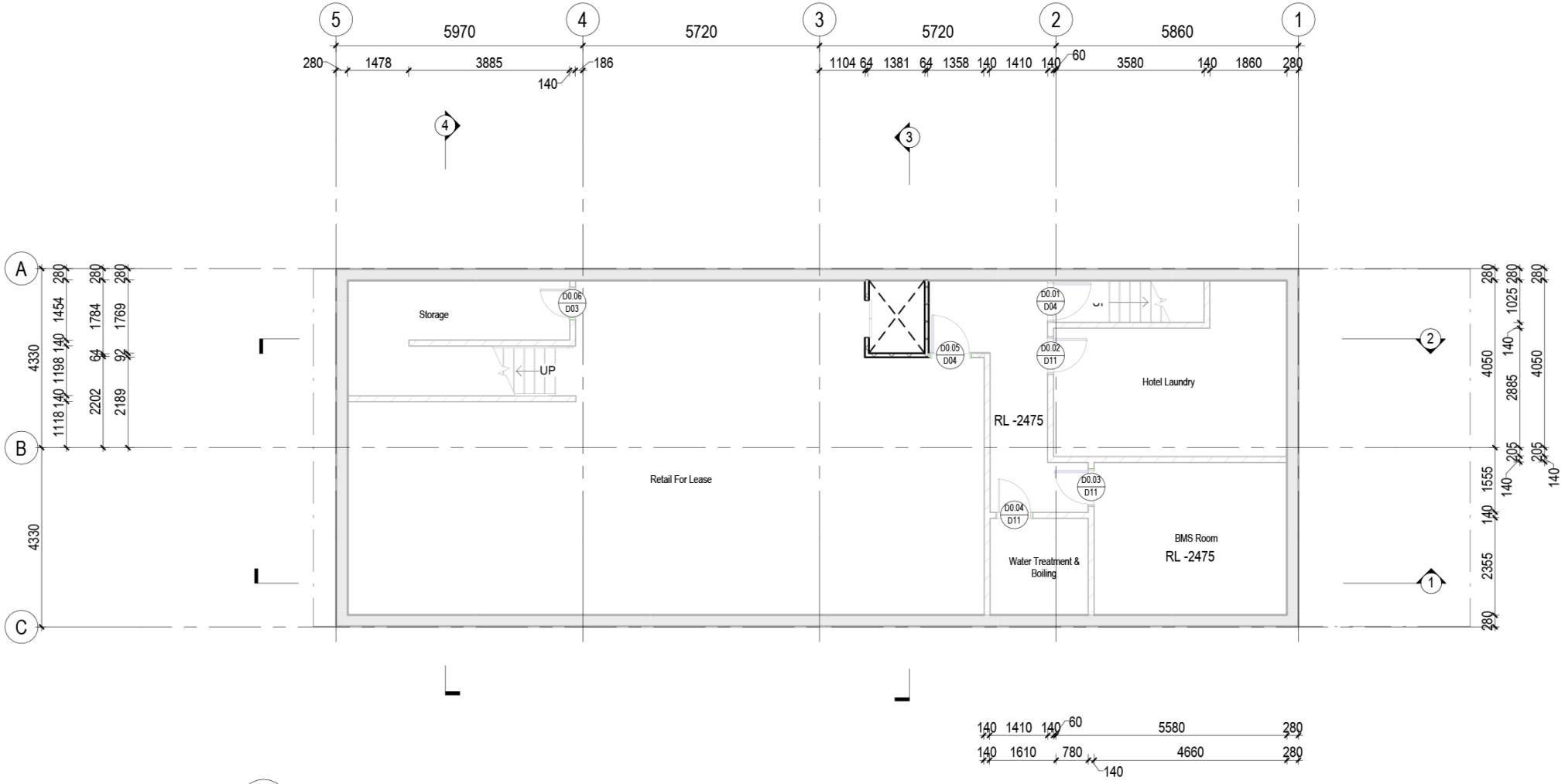
CO-architecture™



1 / 4.05 GROUND LEVEL
Scale: 1 : 100

A0100 GA PLAN - BF

SCALE: 1 : 100 @ A3

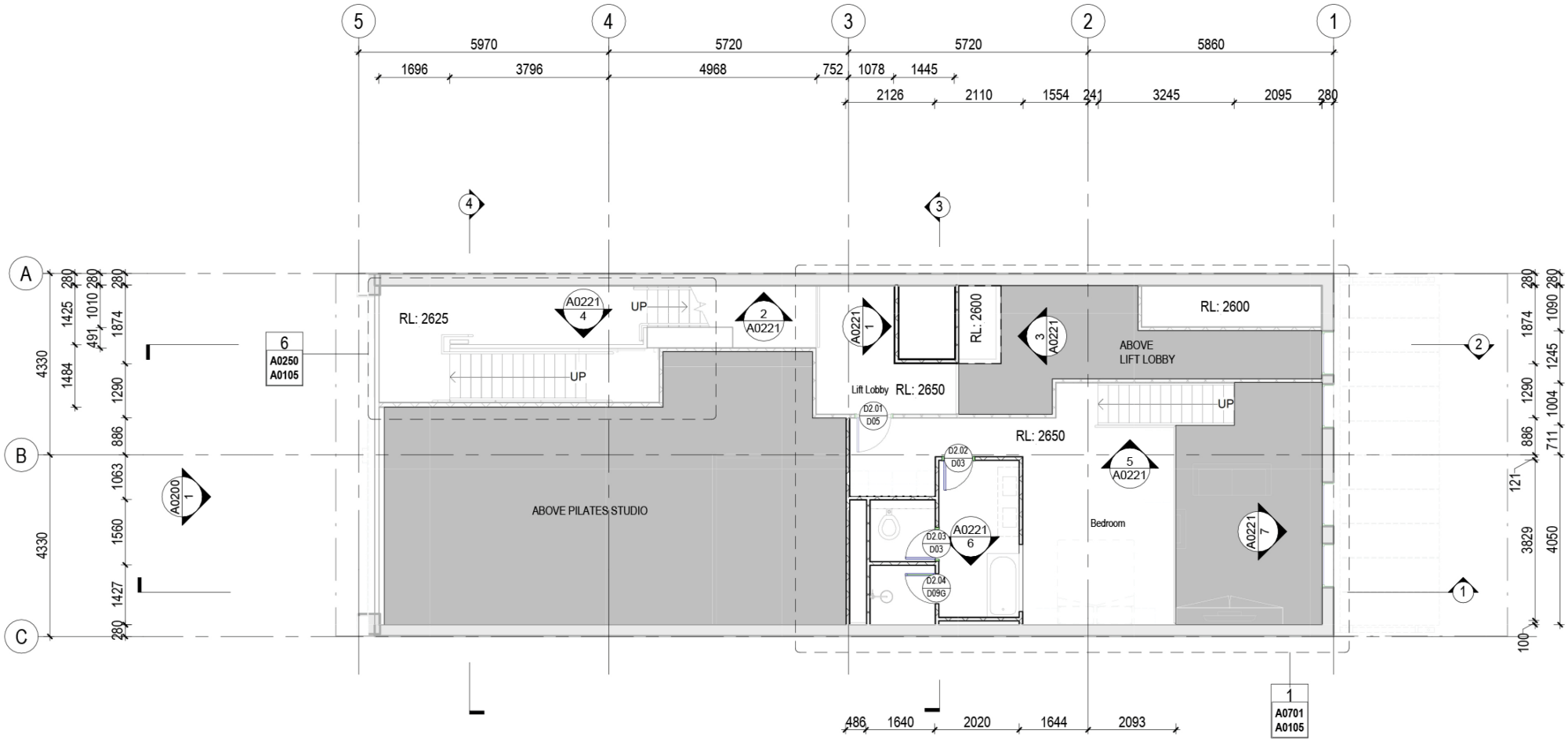


1 / 4.05 GA PLAN - BASEMENT LEVEL
Scale: 1 : 100

A0105 GA PLAN - MF

SCALE: 1 : 100 @ A3

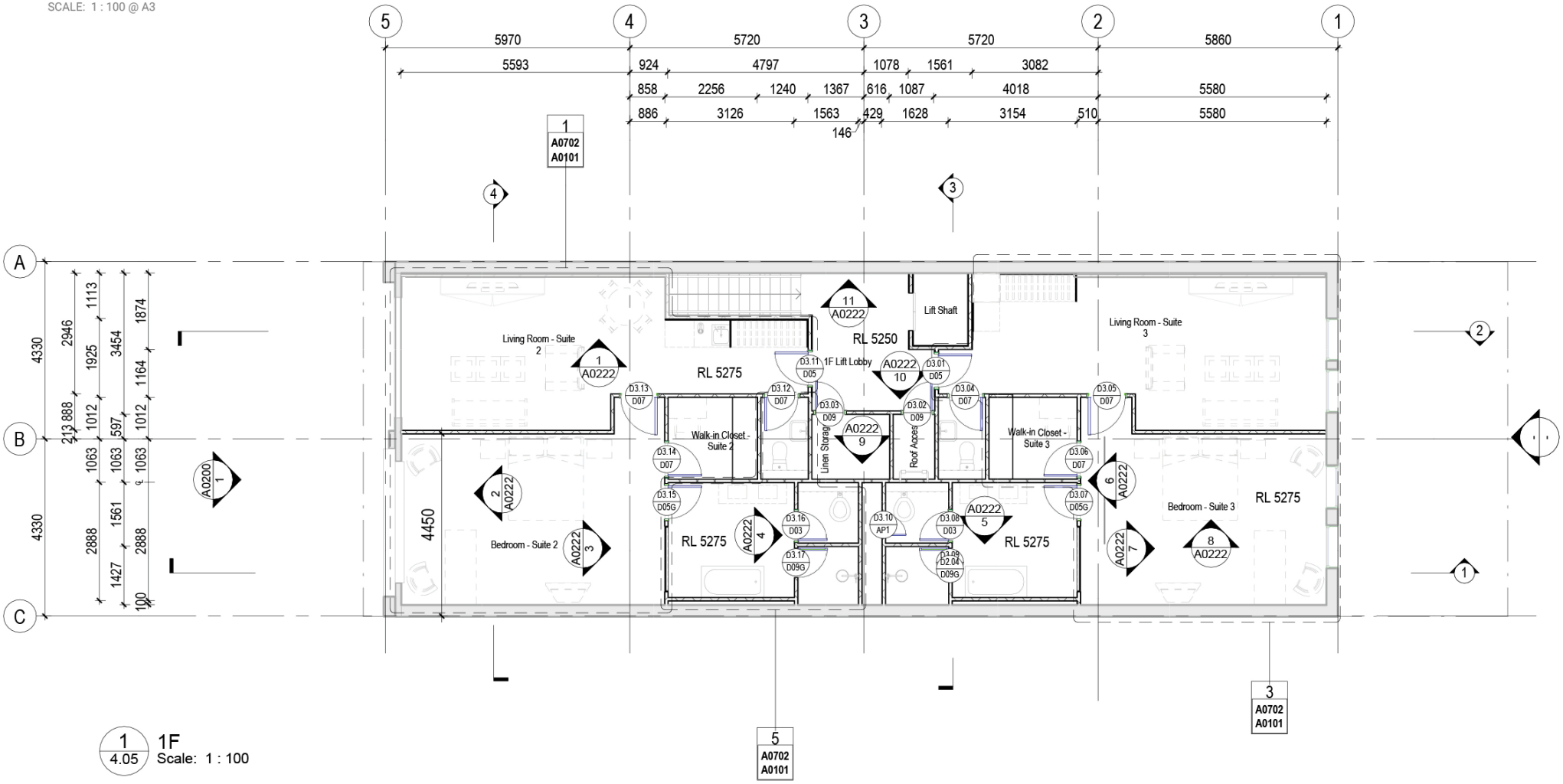
CO-architecture™



1 / 4.05 Mezzanine +2625
Scale: 1 : 100

A0101 GA PLAN - 1F

SCALE: 1 : 100 @ A3

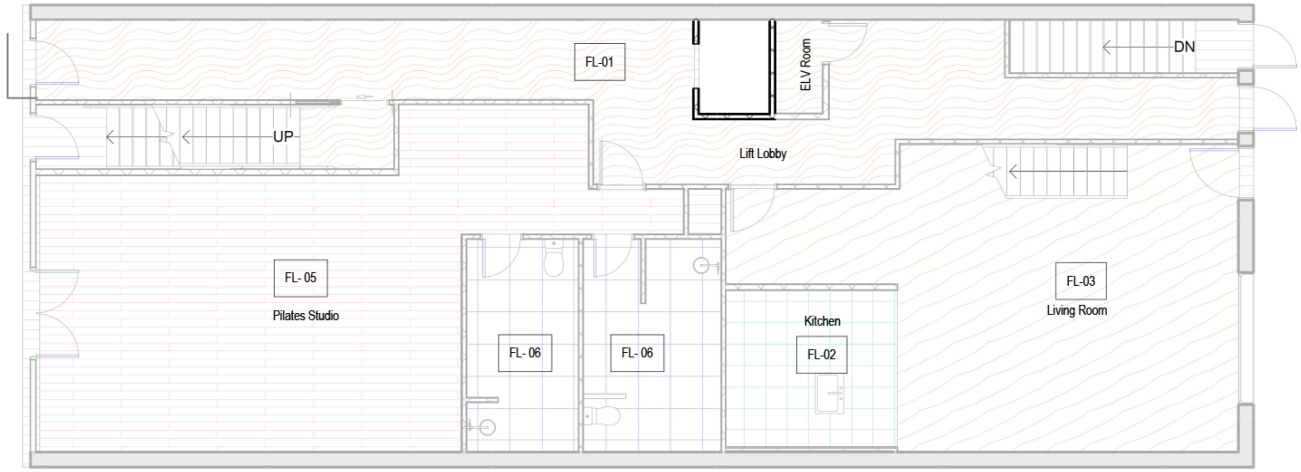


1 / 4.05 1F
Scale: 1 : 100

A0103 GA FLOOR FINISHES PLAN - BASEMENT, GROUND & RL 2625

SCALE: 1 : 100 @ A3

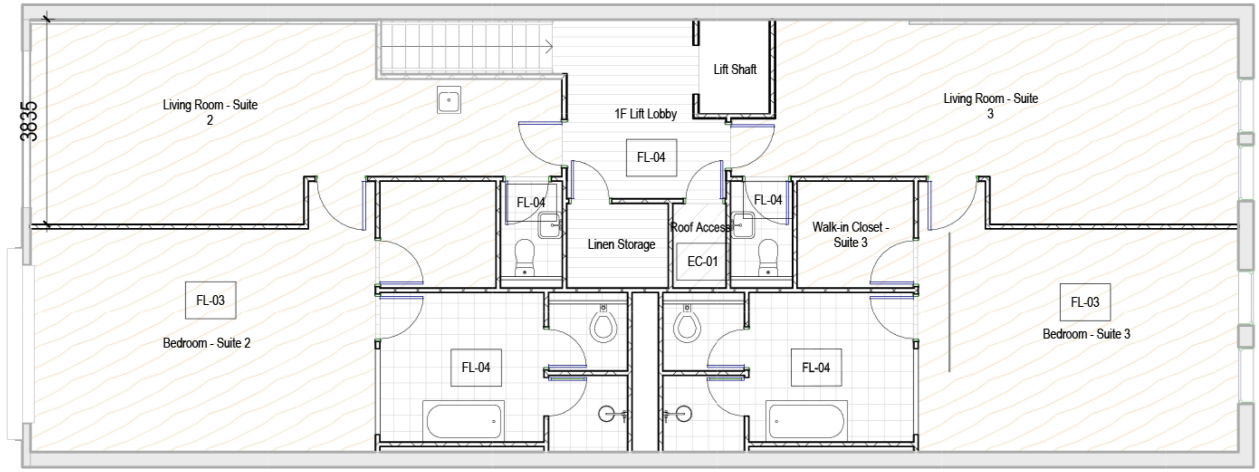
CO-architecture™



FLOOR FINISHES LEGEND

EX-04	SUPPLY AND REPAINT EXTERNAL WALLS WITH WHITE PAINT TO MATCH EXISTING WALL SURFACES. COLOUR CODE AND FINISH TO BE CONFIRMED.
EC-01	SUPPLY AND INSTALL NEW GLAZING UNITS TO EXISTING ARCHED WINDOW. GLAZING TYPE AND THERMAL PERFORMANCE TO BE CONFIRMED IN CONSULTATION WITH CONSULTANTS.
FL-01	NON-SLIP ENGINEERED TIMBER FLOORING
FL-02	300x300mm HOMOGENEOUS FLOOR TILES w/ MOULD-RESISTANT GROUT TO 25mm THK C/S SCREED
FL-03	SOLID TONGUE-AND-GROOVE HARDWOOD FLOORBOARDS OVER EXISTING TIMBER FLOOR; APPLY 3-COAT LOW-VOC MATTE PU FINISH
FL-04	NON-SLIP HOMOGENEOUS FLOOR TILES w/ MOULD-RESISTANT GROUT TO WET AREA ON APPROVED DAMP-PROOF MEMBRANE SYSTEM TO 25mm THK C/S SCREED

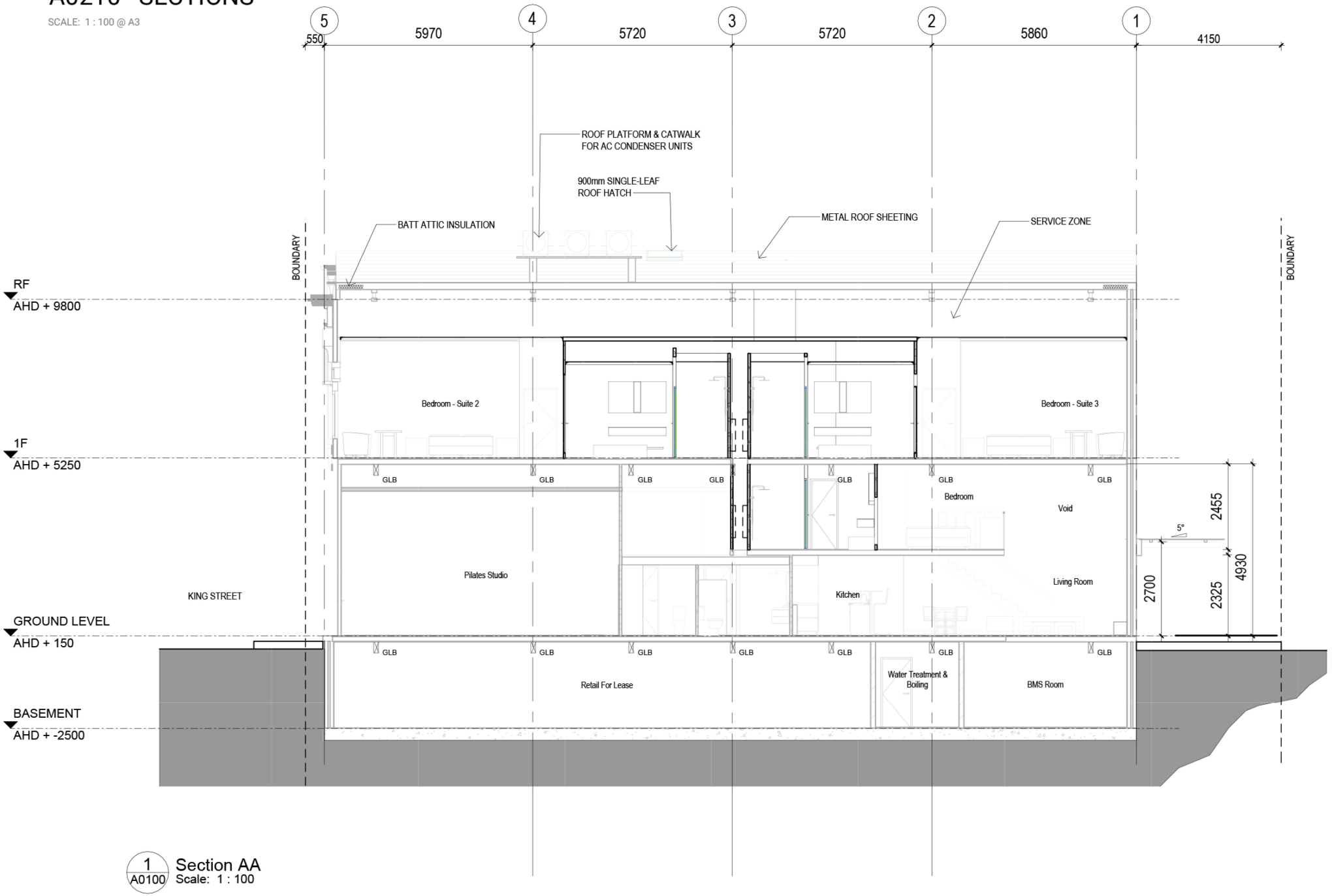
1 / 4.05 GA FINISHES PLAN - GROUND LEVEL
Scale: 1 : 100



2 / 4.05 GA FINISHES PLAN - 1F
Scale: 1 : 100

A0210 SECTIONS

SCALE: 1 : 100 @ A3

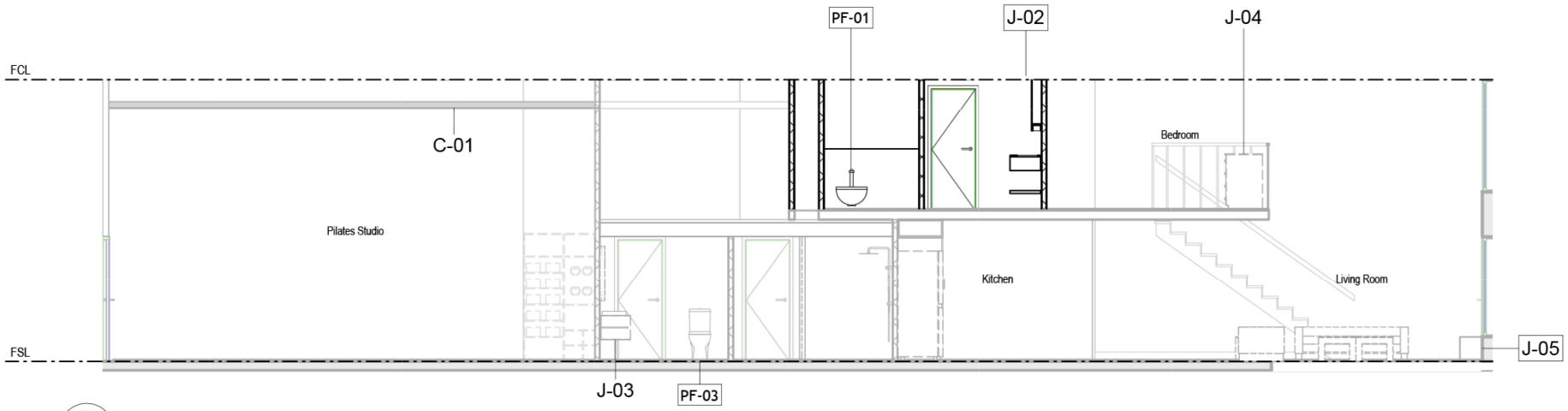


1 / A0100 Section AA
Scale: 1 : 100

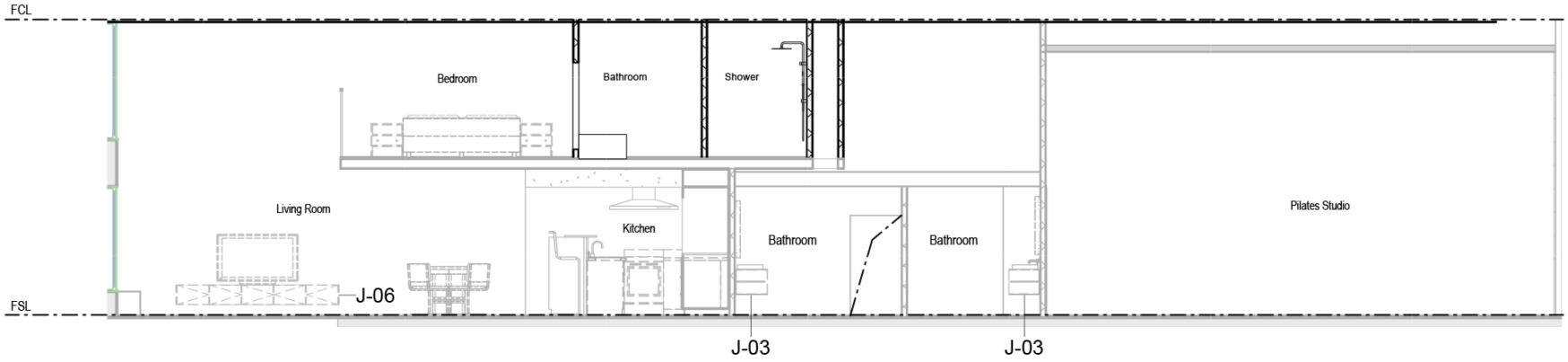
A0221 INTERNAL ELEVATIONS GF

SCALE: 1 : 75 @ A3

CO-architecture™



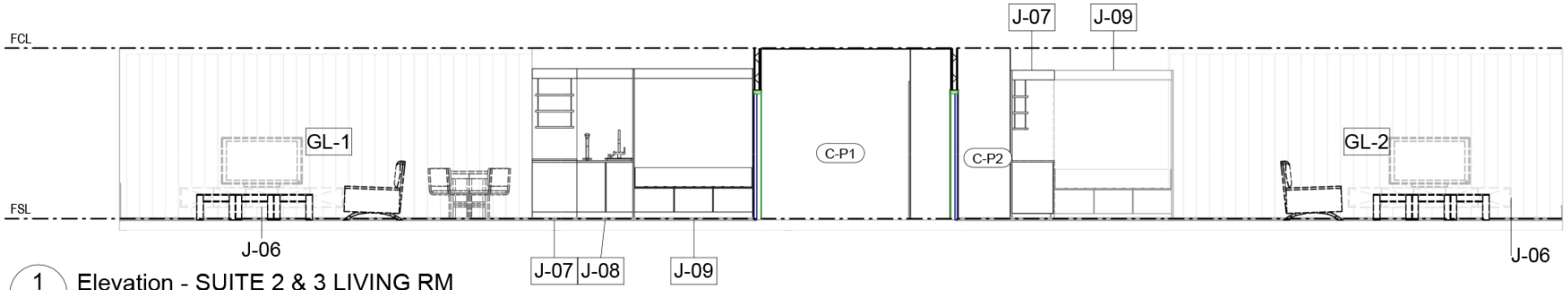
5 A0104 Elevation - PILATES STUDIO & SUITE 1 A
Scale: 1 : 75



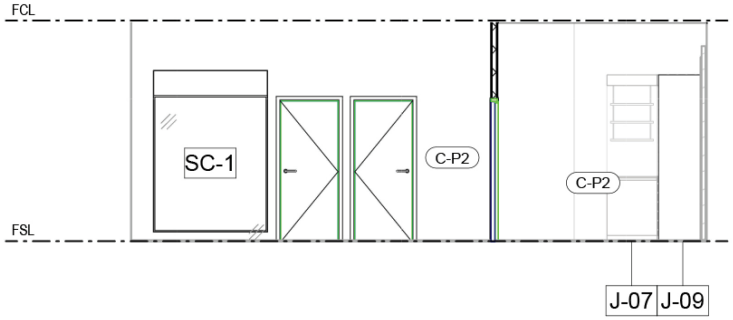
6 A0105 Elevation - PILATES STUDIO & SUITE 1 B
Scale: 1 : 75

A0222 INTERNAL ELEVATIONS 1F

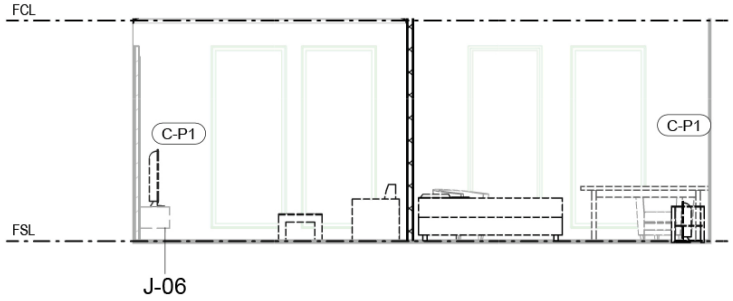
SCALE: 1 : 75 @ A3



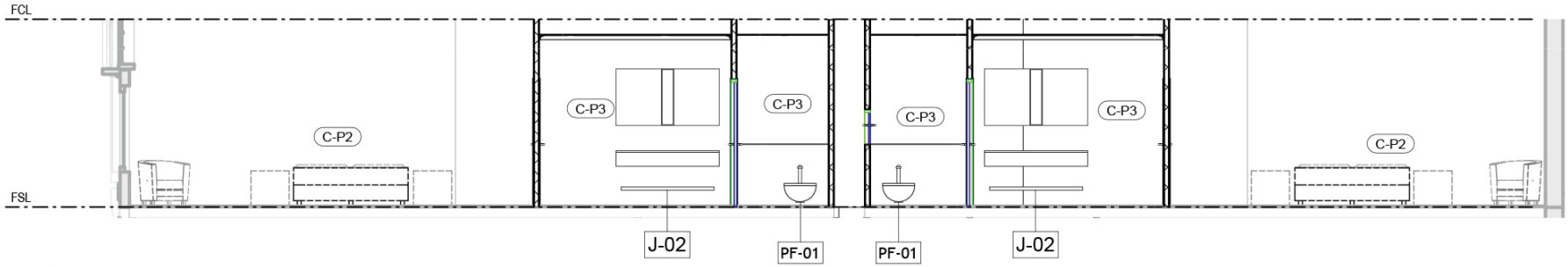
1 A0101 Elevation - SUITE 2 & 3 LIVING RM
Scale: 1 : 75



6 A0101 Elevation - SUITE 2 FACING WET AREA
Scale: 1 : 75



7 A0101 SUITE 2 - LIVING RM & BEDROOM FACING WINDOWS
Scale: 1 : 75



8 A0101 Elevation - SUITE 2 & 3 BEDROOMS & WET AREAS
Scale: 1 : 75

A0250 RAMPS, STAIR & LIFT CORE DETAILS SHEET 1

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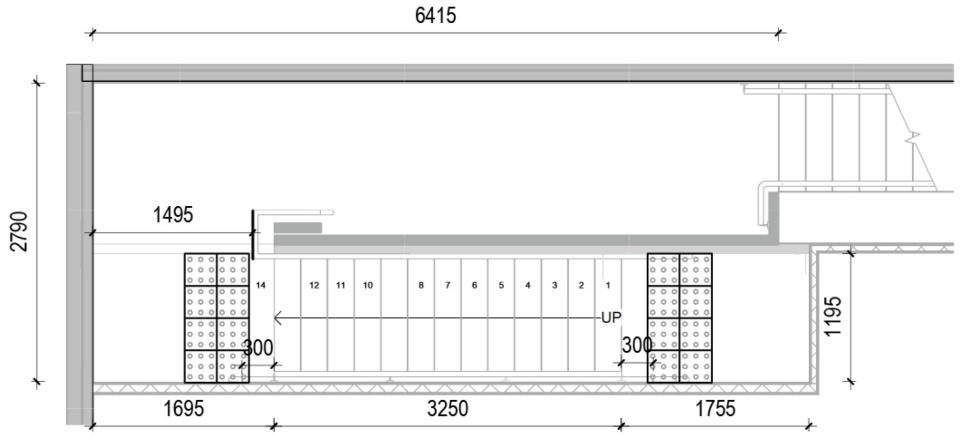
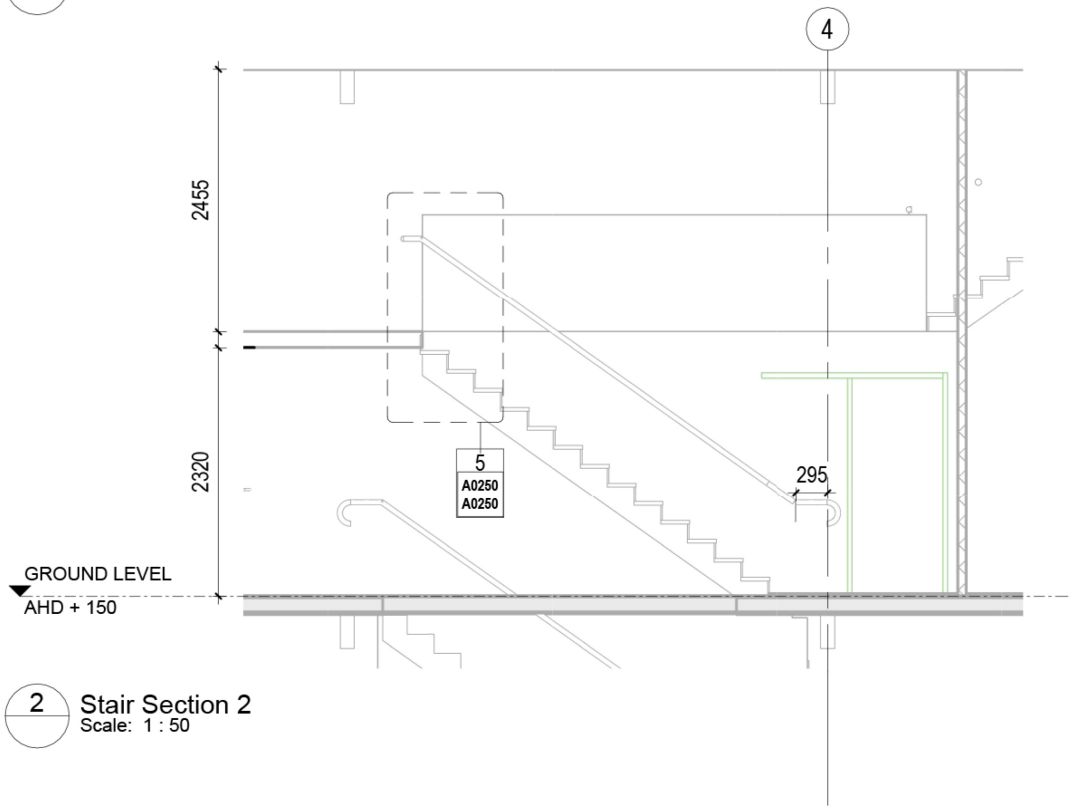
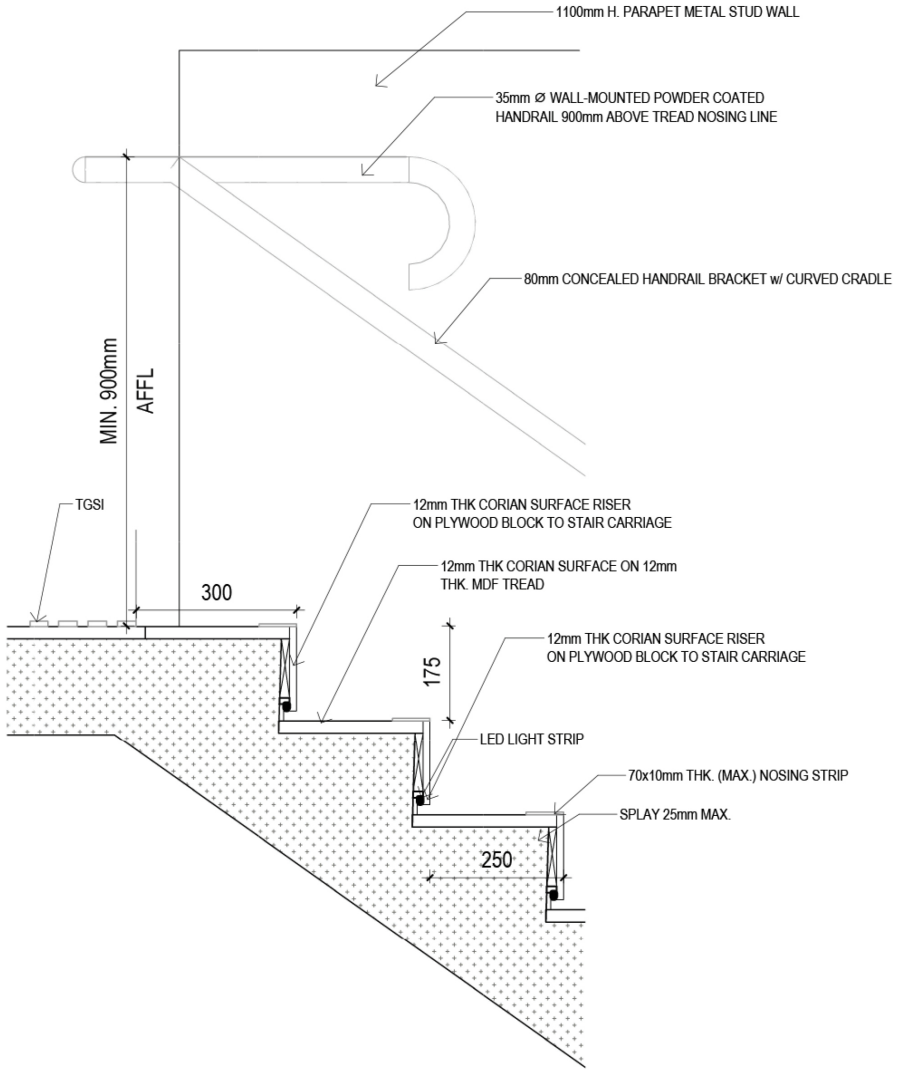
SCALE: As indicated @ A3



6 / A0105 Landing +2625 Copy 1 - Callout 1
Scale: 1 : 50



2 Stair Section 2
Scale: 1 : 50



5 / A0250 Stair Section 2 - Callout 1
Scale: 1 : 10

content
CO-architecture™

info@co-architecture.com
www.co-architecture.com
CO-ARCHITECTURE PTY LTD
ACN 660 701 628

NEW DOOR SCHEDULE

Mark	Type	Frame Type	Panel Type	Frame Finish	Panel Finish	Width	Height	pa_DoorCloser	Seal	pa_DoorLock
D0.01	D04	WD	HM	PT-02 WARM GREY	PT-02 WARM GREY	910	1980	Y		Y - FAIL SAFE
D0.02	D11	WD	WD	PT-02 WARM GREY	PT-02 WARM GREY	810	1980			Y - DEADBOLT LOCK
D0.03	D11	WD	WD	PT-02 WARM GREY	PT-02 WARM GREY	810	1980			Y - DEADBOLT LOCK
D0.04	D11	WD	WD	PT-02 WARM GREY	PT-02 WARM GREY	810	1980			Y - DEADBOLT LOCK
D0.05	D04	WD	HM	PT-02 WARM GREY	PT-02 WARM GREY	910	1980	Y		Y - FAIL SAFE
D0.06	D03	AL	HM	LM-02 LIGHT GREY	LM-02 LIGHT GREY	710	1980			
D1.01	D01	AL	HM	LM-03 MATT WHITE	LM-03 MATT WHITE	810	1980	Y		Y - MAGNETIC SMART DOOR LOCK w/ INTERCOM
D1.02	D01	AL	HM	LM-03 MATT WHITE	LM-03 MATT WHITE	810	1980	Y		Y - MAGNETIC SMART DOOR LOCK w/ INTERCOM
D1.03	D03A	AL	HM	MATCHING WALL MATL	LM-05 HAIRLINE S.S.	710	1980	Y		Y
D1.04	D01	AL	HM	LM-03 MATT WHITE	LM-03 MATT WHITE	810	1980	Y		Y - MAGNETIC SMART DOOR LOCK w/ INTERCOM
D1.05	D08	-	ALGL	-	GL	810	1980			Y - FAIL SAFE
D1.06	D02	-	ALGL	-	GL	1620	2005	Y		MAGNETIC SMART DOOR LOCK w/ INTERCOM
D1.07	D06G	AL	ALGL	-	GL	0	0			
D1.07A	D10P	-	ALGL	-	ALGL	0	0			
D1.07B	D10F	AL	-	LM-06 MATT BLACK	-	500	2040			MAGNETIC SMART DOOR LOCK w/ INTERCOM
D1.08	D05	AL	HM	LM-01 BRONZE	LM-01 BRONZE	810	1980	Y	SC & AC	MAGNETIC SMART DOOR LOCK w/ INTERCOM
D1.09	D05	AL	HM	LM-01 BRONZE	LM-01 BRONZE	810	1980	Y	SC & AC	MAGNETIC SMART DOOR LOCK w/ INTERCOM
D1.10	D04	AL	HM	LM-03 MATT WHITE	LM-03 MATT WHITE	910	1980	Y		Y - FAIL SAFE
D1.11	D03	AL	HM	LM-04 SATIN WHITE	LM-04 SATIN WHITE	710	1980			
D1.12	D03	AL	HM	LM-04 SATIN WHITE	LM-04 SATIN WHITE	710	1980			
D1.13	AP1	AL	AL	MATCHING WALL MATL	LM-05 HAIRLINE S.S.	500	500			Y - DEADBOLT LOCK
D2.01	D05	AL	HM	LM-01 BRONZE	LM-01 BRONZE	810	1980	Y	SC & AC	MAGNETIC SMART DOOR LOCK w/ INTERCOM
D2.02	D03	AL	HM	LM-03 MATT WHITE	LM-03 MATT WHITE	710	1980			
D2.03	D03	AL	HM	LM-03 MATT WHITE	LM-03 MATT WHITE	710	1980			
D2.04	D09G	-		-	GL	715	2050			
D3.01	D05	AL	HM	LM-01 BRONZE	LM-01 BRONZE	810	1980	Y	SC & AC	MAGNETIC SMART DOOR LOCK w/ INTERCOM
D3.02	D09	AL	HM	LM-03 MATT WHITE	LM-03 MATT WHITE	710	2040			
D3.03	D09	AL	HM	LM-03 MATT WHITE	LM-03 MATT WHITE	710	2040			
D3.04	D07	AL	WD	LM-03 MATT WHITE	LM-03 MATT WHITE	810	1980			Y - DEADBOLT LOCK
D3.05	D07	AL	HM	LM-03 MATT WHITE	LM-03 MATT WHITE	910	1980			
D3.06	D07	AL	WD	LM-03 MATT WHITE	LM-03 MATT WHITE	810	1980			Y - DEADBOLT LOCK
D3.07	D05G	AL	HMG	LM-06 MATT BLACK	LM-06 MATT BLACK	810	1980		SC & AC	
D3.08	D03	AL	HM	LM-03 MATT WHITE	LM-03 MATT WHITE	710	1980			
D3.09	D09G	-		-	GL	715	2050			
D3.10	AP1	AL	AL	MATCHING WALL MATL	LM-05 HAIRLINE S.S.	500	500			Y - DEADBOLT LOCK
D3.11	D05	AL	HM	LM-01 BRONZE	LM-01 BRONZE	810	1980	Y	SC & AC	MAGNETIC SMART DOOR LOCK w/ INTERCOM
D3.12	D07	AL	WD	LM-03 MATT WHITE	LM-03 MATT WHITE	810	1980			Y - DEADBOLT LOCK
D3.13	D07	AL	HM	LM-03 MATT WHITE	LM-03 MATT WHITE	910	1980			
D3.14	D07	AL	WD	LM-03 MATT WHITE	LM-03 MATT WHITE	810	1980			Y - DEADBOLT LOCK
D3.15	D05G	AL	HMG	LM-06 MATT BLACK	LM-06 MATT BLACK	810	1980		SC & AC	
D3.16	D03	AL	HM	LM-03 MATT WHITE	LM-03 MATT WHITE	710	1980			
D3.17	D09G	-		-	GL	715	2050			

DOOR NUMBER LEGEND

AC	ACOUSTIC SEAL
AL	ALUMINIUM
ALGL	ALUMINIUM GLAZED
AP	ACCESS PANEL
GL	GLAZING
HM	HOLLOW METAL
HMG	GALVANISED HOLLOW METAL
LM	LAMINATE METAL
PC	POWDERCOATED FINISH
PT	PAINT FINISH
SC	SOUND SEAL
WD	SOLID WOOD

DATE	REVISION	BY	NO.

KEY PLAN

PROJECT
BOUTIQUE HOTEL CLUSTER AT KING ST

PROJECT ADDRESS
39-41 KING ST, PERTH

DRAWING TITLE
DOOR SCHEDULE SHEET 1

CLIENT
CO-ARCHITECTURE

DATE

SCALE
As indicated @ A3

JOB NUMBER
AJ25003

DRAWING NO.
A0420

NORTH

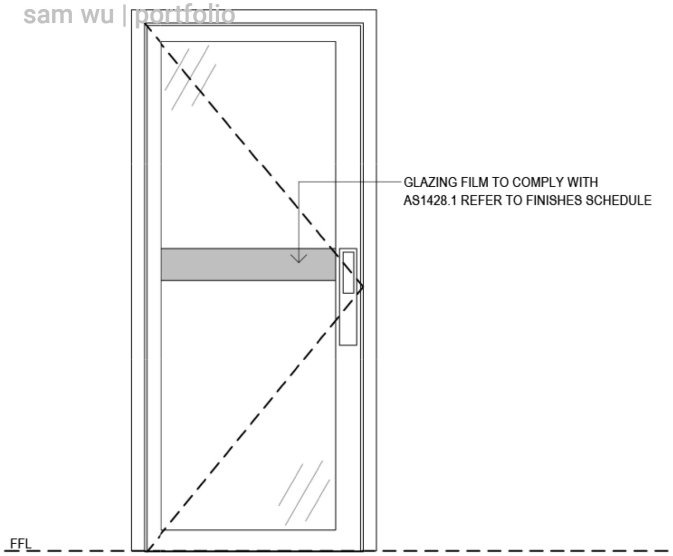
REVISION

sam wu | portfolio

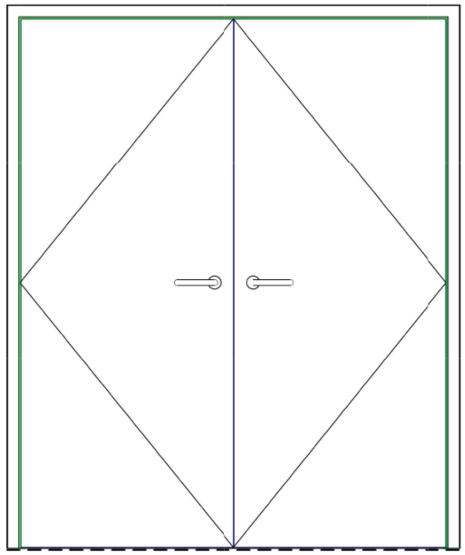
CO-architecture™
info@co-architecture.com
www.co-architecture.com
CO-ARCHITECTURE PTY LTD
ACN 660 701 628

DOOR NUMBER LEGEND

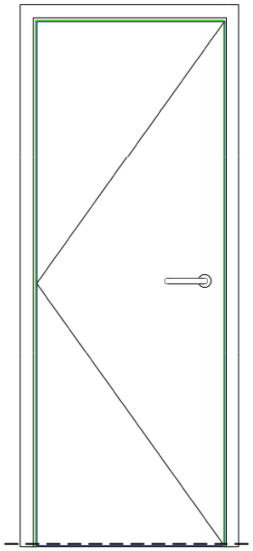
AC	ACOUSTIC SEAL
AL	ALUMINIUM
ALGL	ALUMINIUM GLAZED
AP	ACCESS PANEL
GL	GLAZING
HM	HOLLOW METAL
HMG	GALVANISED HOLLOW METAL
LM	LAMINATE METAL
PC	POWDERCOATED FINISH
PT	PAINT FINISH
SC	SOUND SEAL
WD	SOLID WOOD



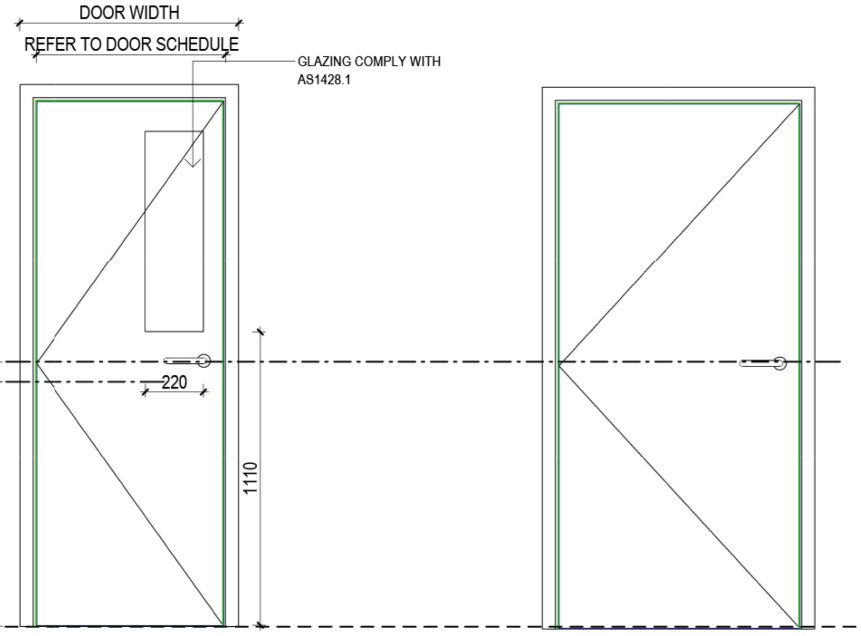
DOOR TYPE D01 - TYPICAL EXTERNAL ALUMINIUM DOORS
SINGLE HINGED SWING GLAZED DOOR
ANODISED ALUMINIUM DOOR w/ CLEAR GLASS PANEL



DOOR TYPE D02 - EXTERNAL ALUMINIUM DOUBLE DOOR
DOUBLE HINGED SWING GLAZED DOOR
ANODISED ALUMINIUM DOOR w/ CLEAR GLASS PANEL

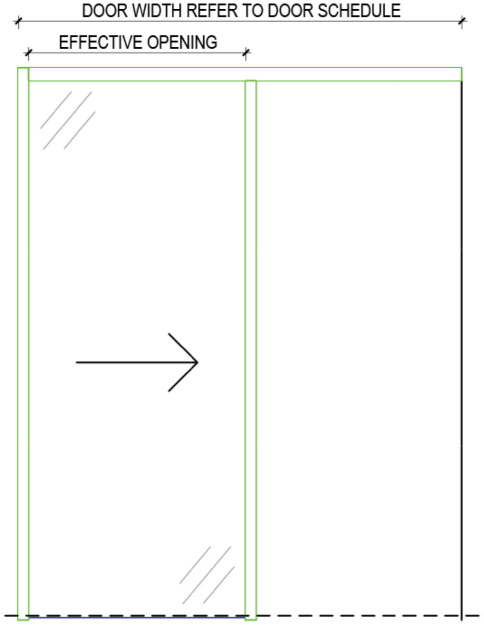


DOOR TYPE D02 / D03 / D05 / D07 / D08 / D09 / D10
- INTERNAL SOLID DOORS
SINGLE HINGED SWING DOOR
SOLID CORE LEAF



DOOR TYPE D04 - INTERNAL SOLID DOORS
SINGLE HINGED SWING DOOR w/ VISION PANEL
SOLID CORE LEAF

DOOR TYPE D05 / D11 - INTERNAL SOLID DOORS
SINGLE HINGED SWING DOOR
SOLID CORE LEAF



DOOR TYPE D06 / D11 - INTERNAL GLAZED SLIDING DOOR
SINGLE TRACK SLIDING DOOR
ALUMINIUM FRAMED GLAZED PANEL

DATE	REVISION	BY	NO.

KEY PLAN

PROJECT
BOUTIQUE HOTEL CLUSTER AT KING ST

PROJECT ADDRESS
39-41 KING ST, PERTH

DRAWING TITLE
DOOR SCHEDULE SHEET 2

CLIENT
CO-ARCHITECTURE

DATE

SCALE
As indicated @ A3

JOB NUMBER
AJ25003

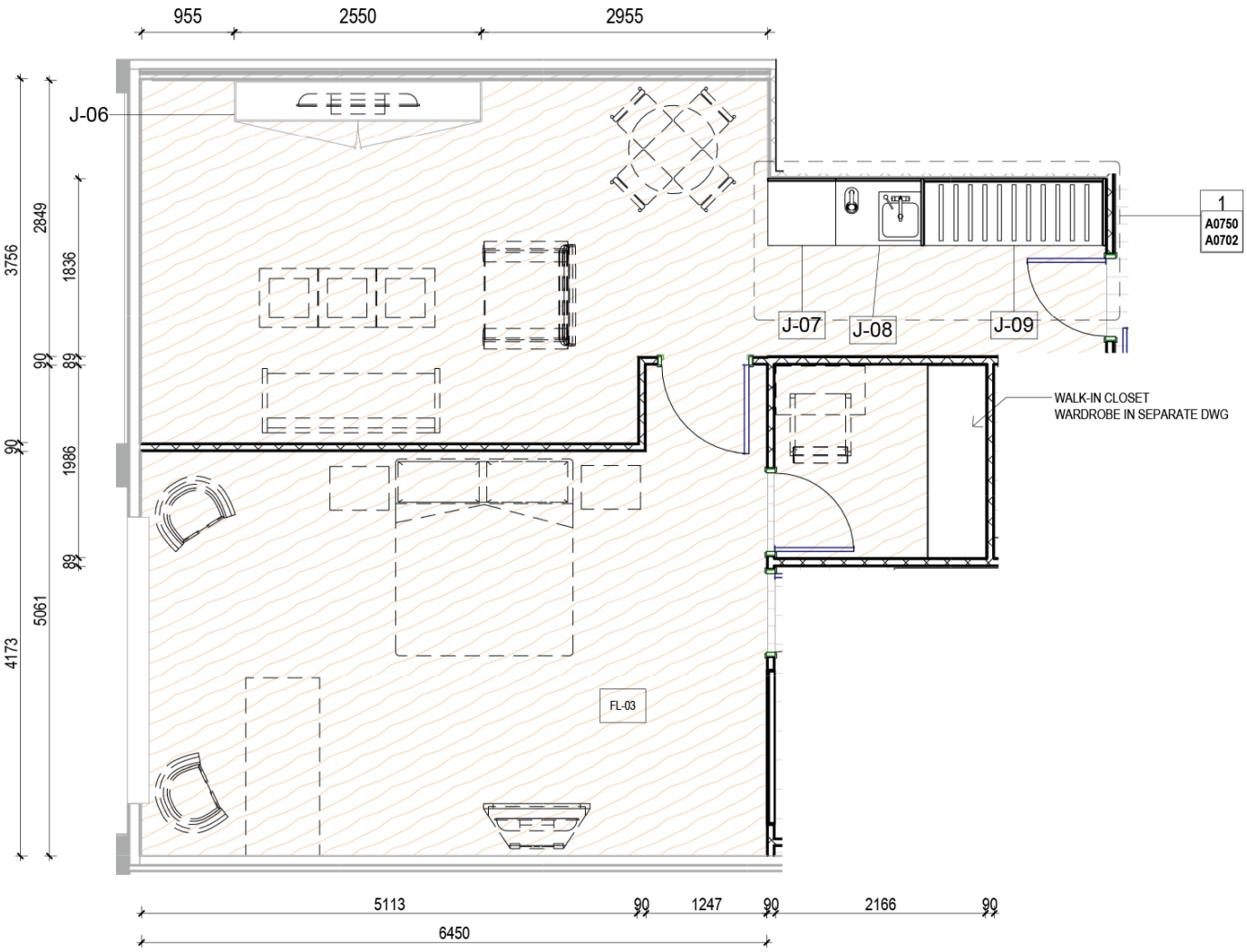
DRAWING NO.
A0421

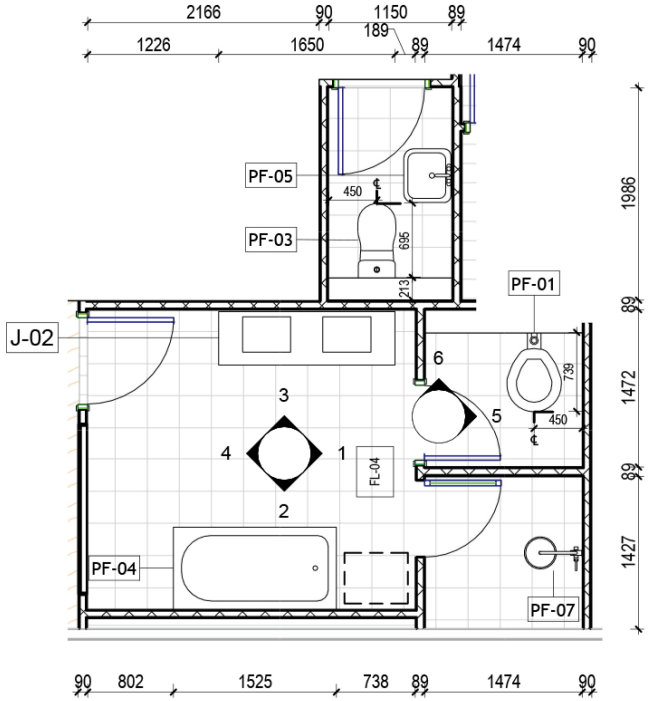
NORTH

REVISION

A0702 1F FITOUT PLAN & RCP

SCALE: 1 : 50 @ A3

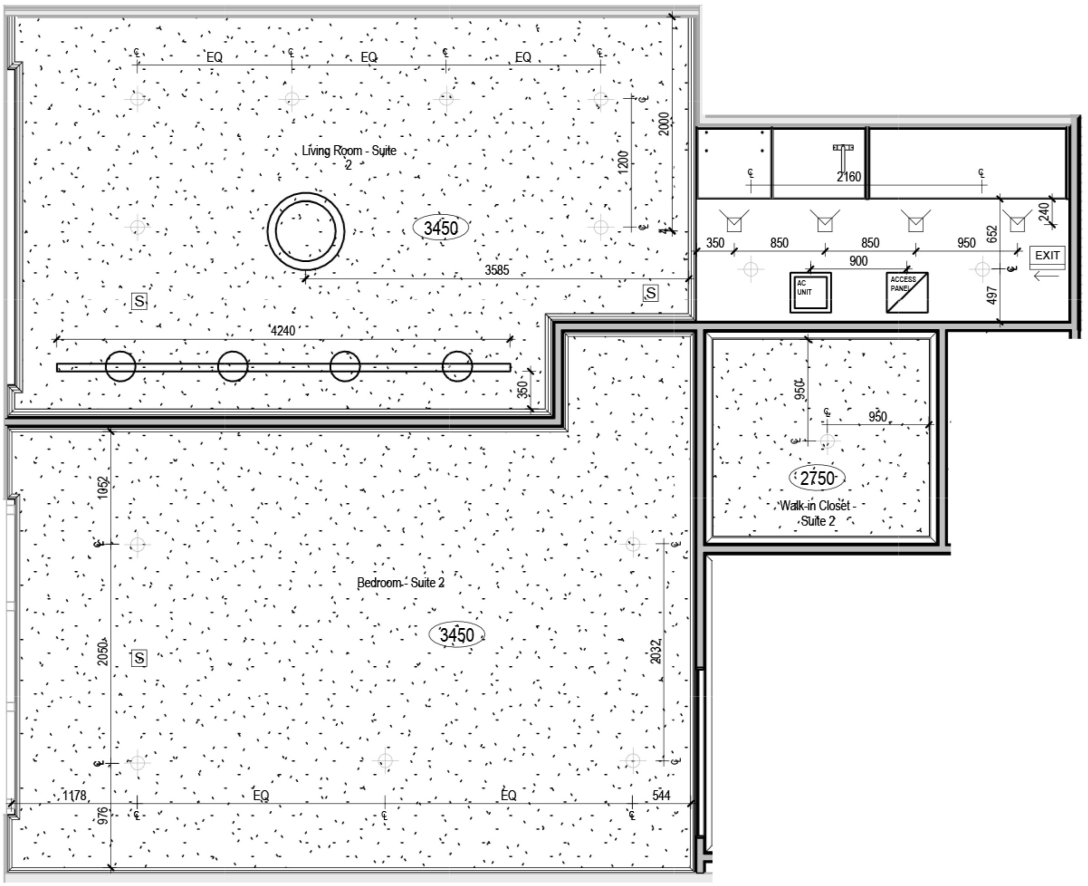




A0703 1F FITOUT PLAN & RCP Copy 1

SCALE: As indicated @ A3

CO-architecture™



0000 CEILING LEVEL AFFL

DOWNLIGHT

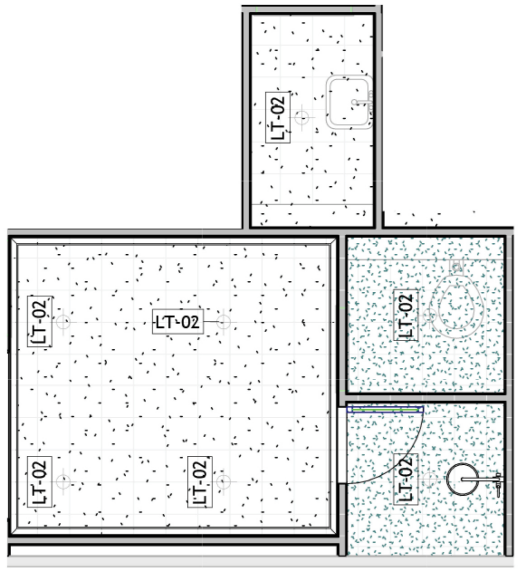
EXIT SIGN

SPOTLIGHT

S SMOKE DETECTOR

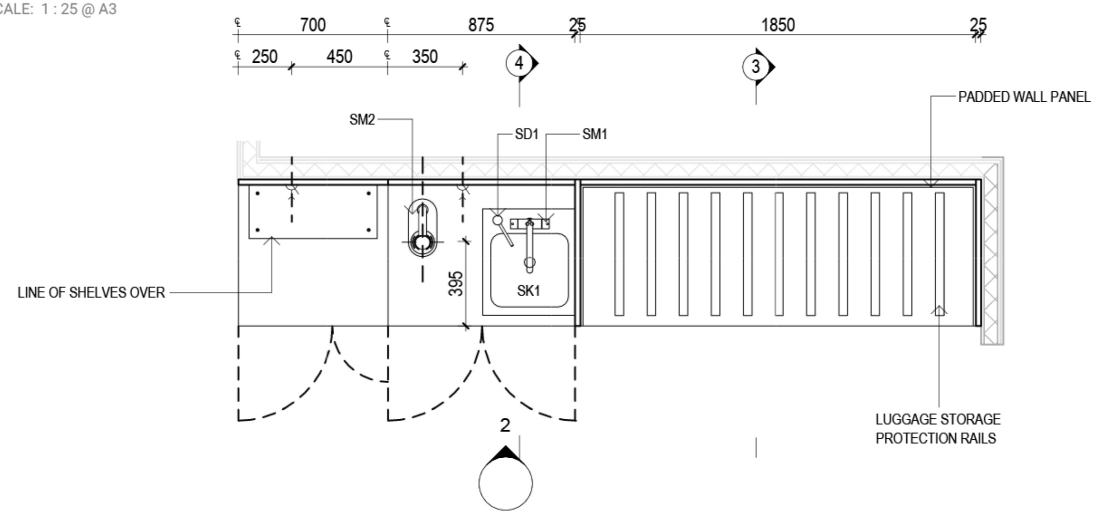
CEILING LAMP

TRACK LIGHT WITH SPOTS

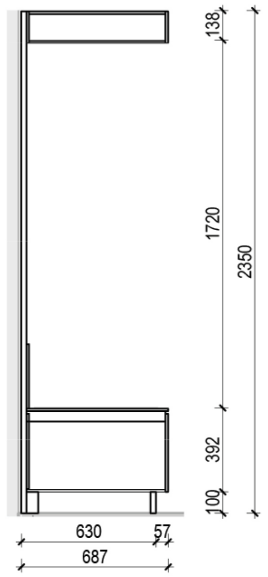


A0750 SUITE JIONERY DETAILS

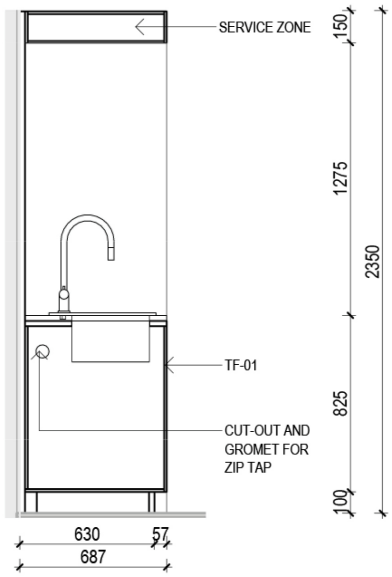
SCALE: 1 : 25 @ A3



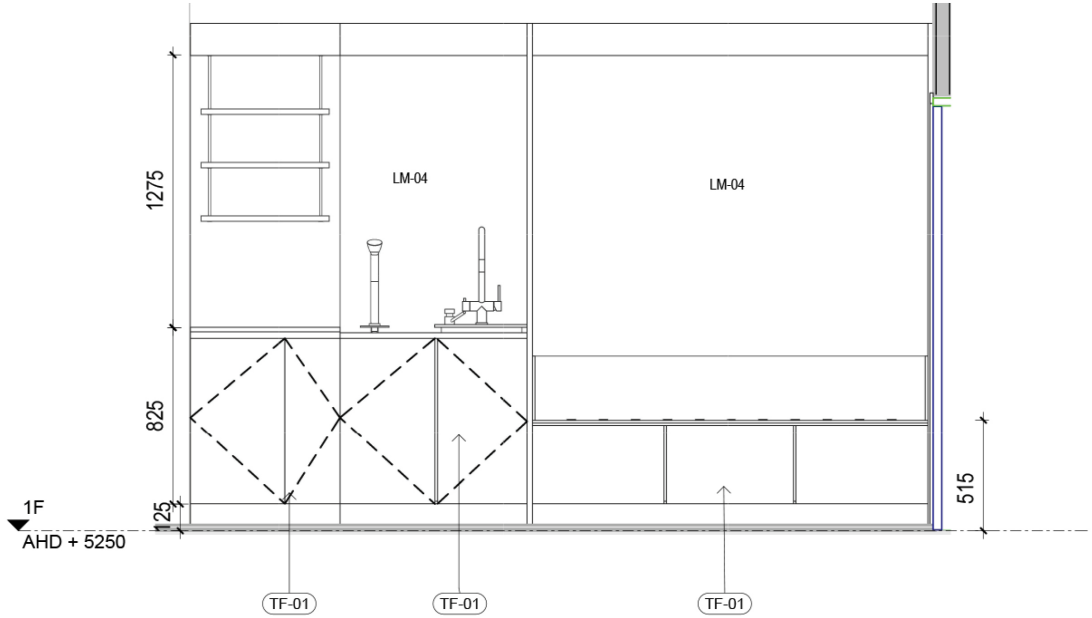
1 / A0702 1F - SUITE 2 FITOUT PLAN - Callout 1
Scale: 1 : 25



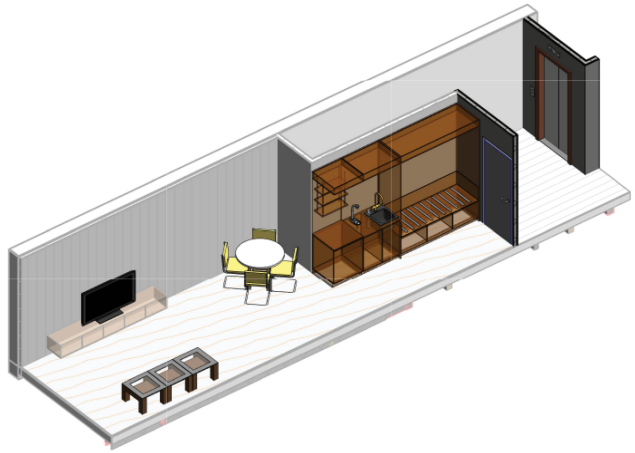
3 / A0750 Section 3
Scale: 1 : 25



4 / A0750 Section 4
Scale: 1 : 25



2 / A0750 Elevation Luggage Rack & Kitchenette
Scale: 1 : 25

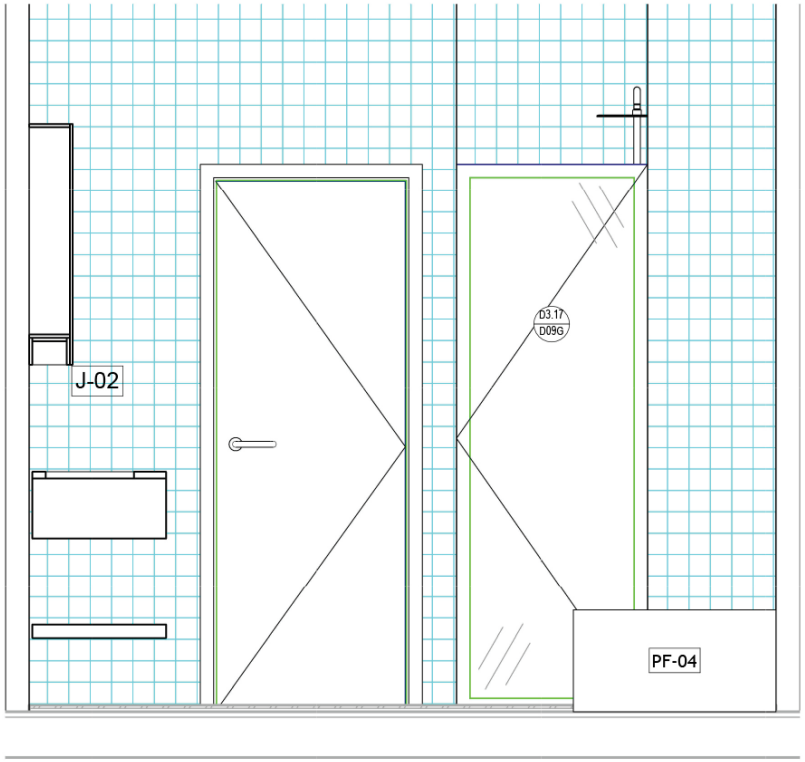


5 3D View
Scale:

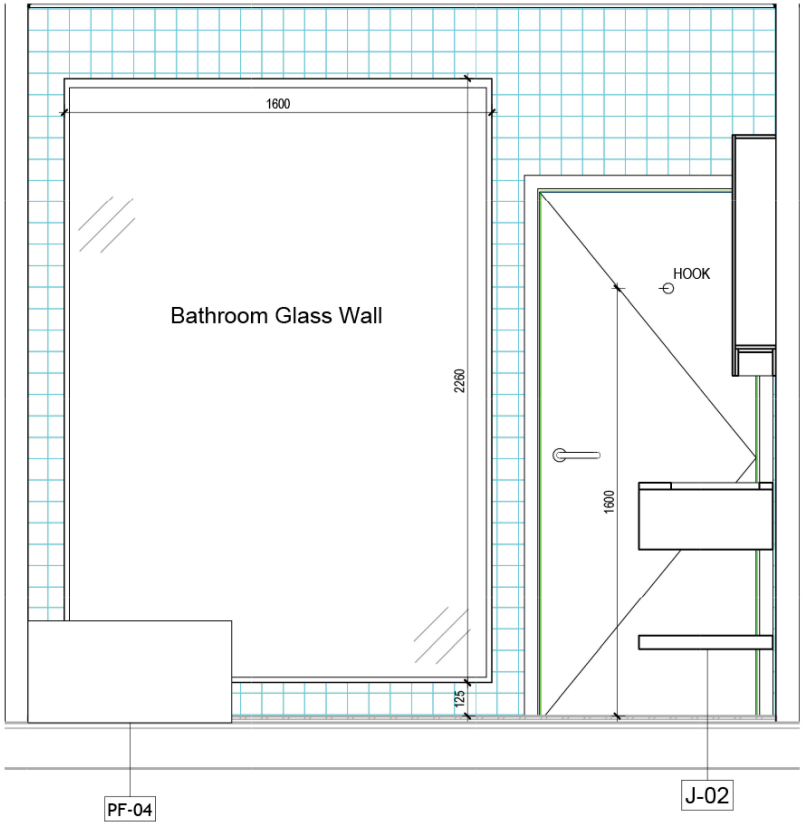
A0708 1F WET AREA FITOUT ELEVATIONS

SCALE: 1 : 20 @ A3

CO-architecture™



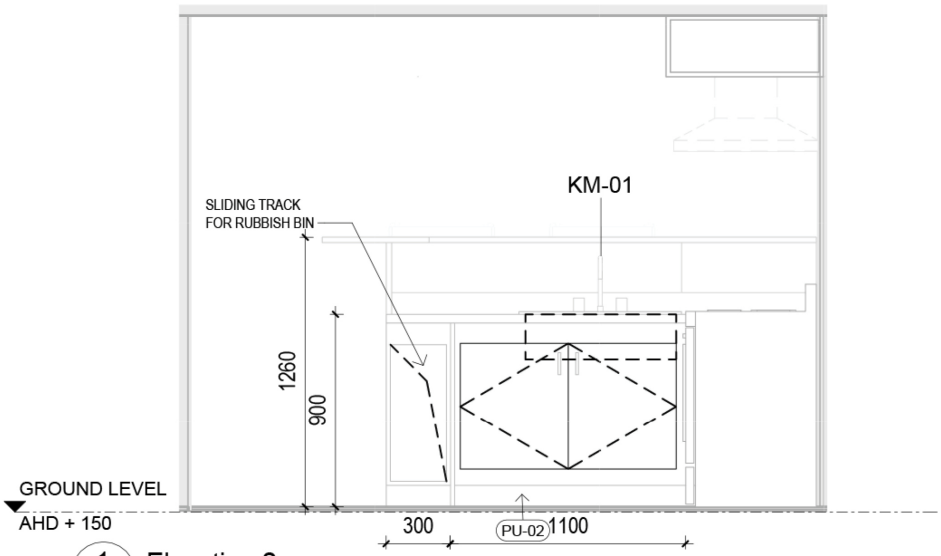
1 A0702 1
Scale: 1 : 20



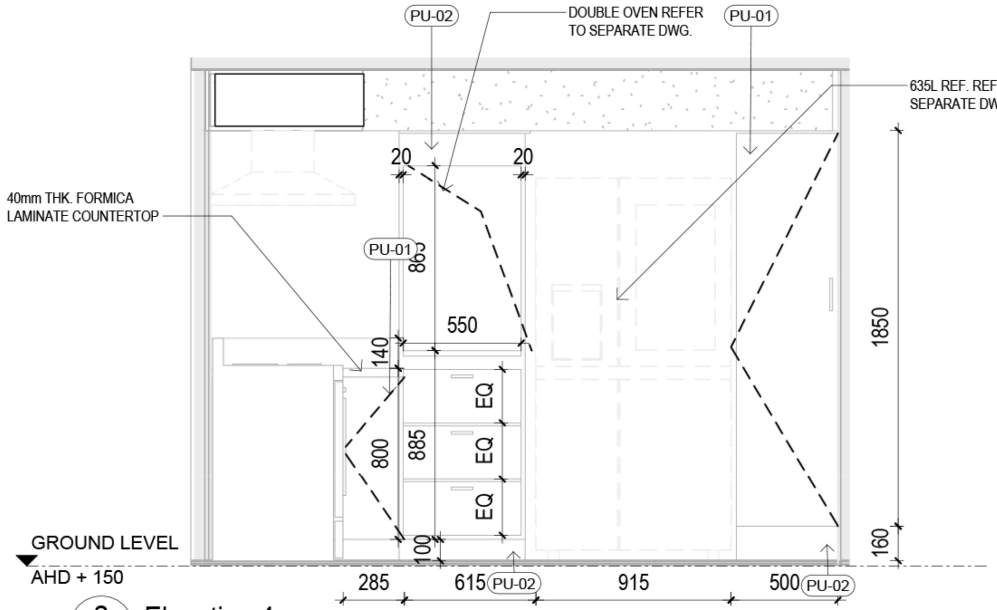
4 A0702 4
Scale: 1 : 20

A0900 KITCHEN FITOUTS

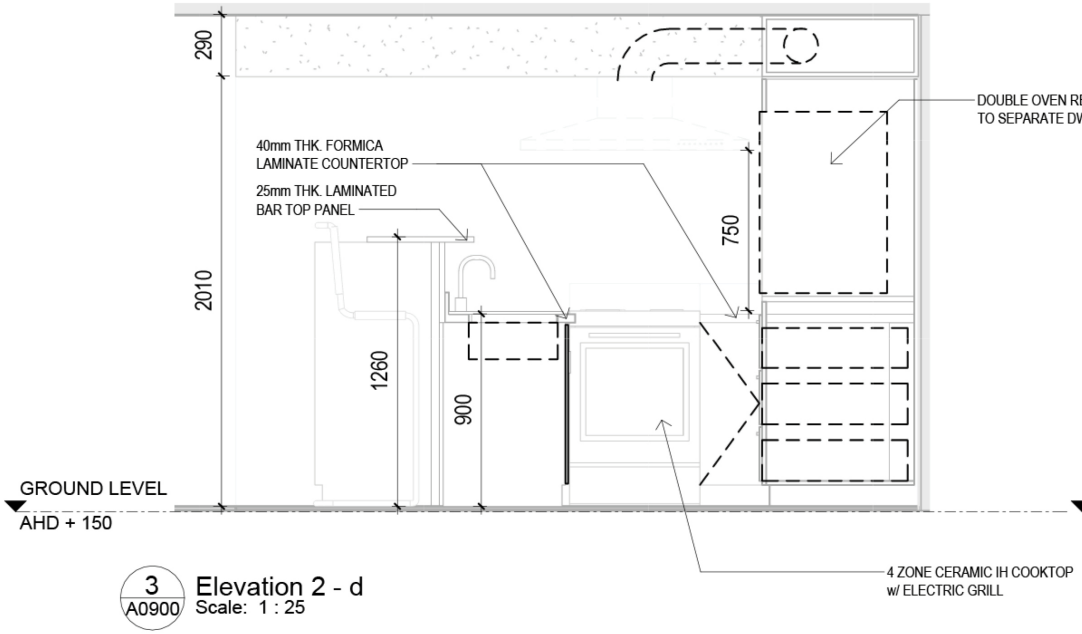
SCALE: As indicated @ A3



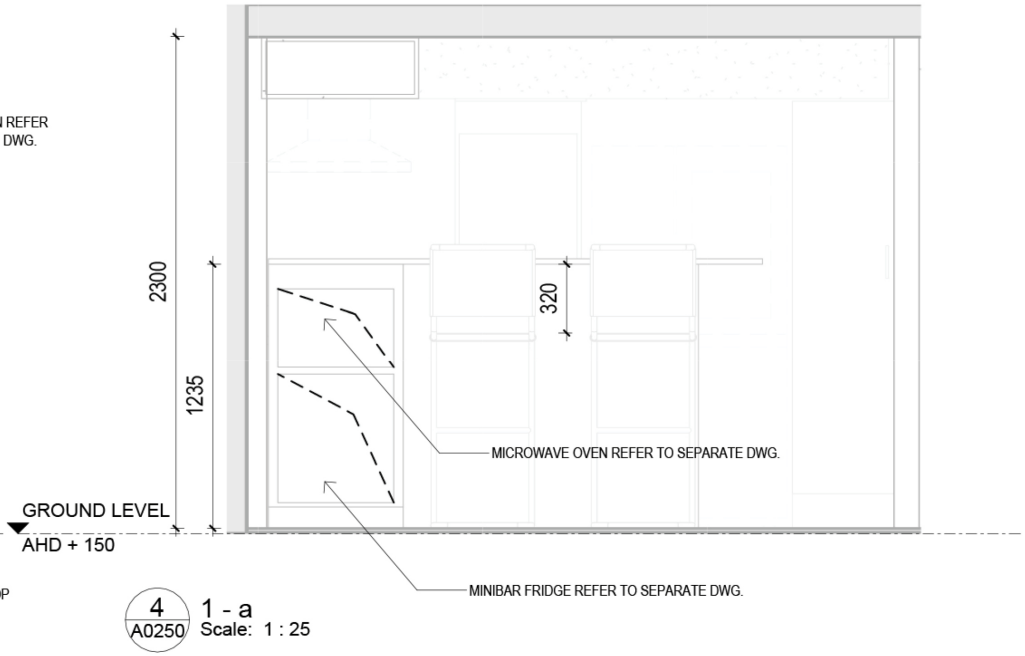
1 A0900 Elevation 2 - c
Scale: 1 : 25



2 A0900 Elevation 4 - a
Scale: 1 : 25



3 A0900 Elevation 2 - d
Scale: 1 : 25



4 A0250 1 - a
Scale: 1 : 25

My contribution on this project:

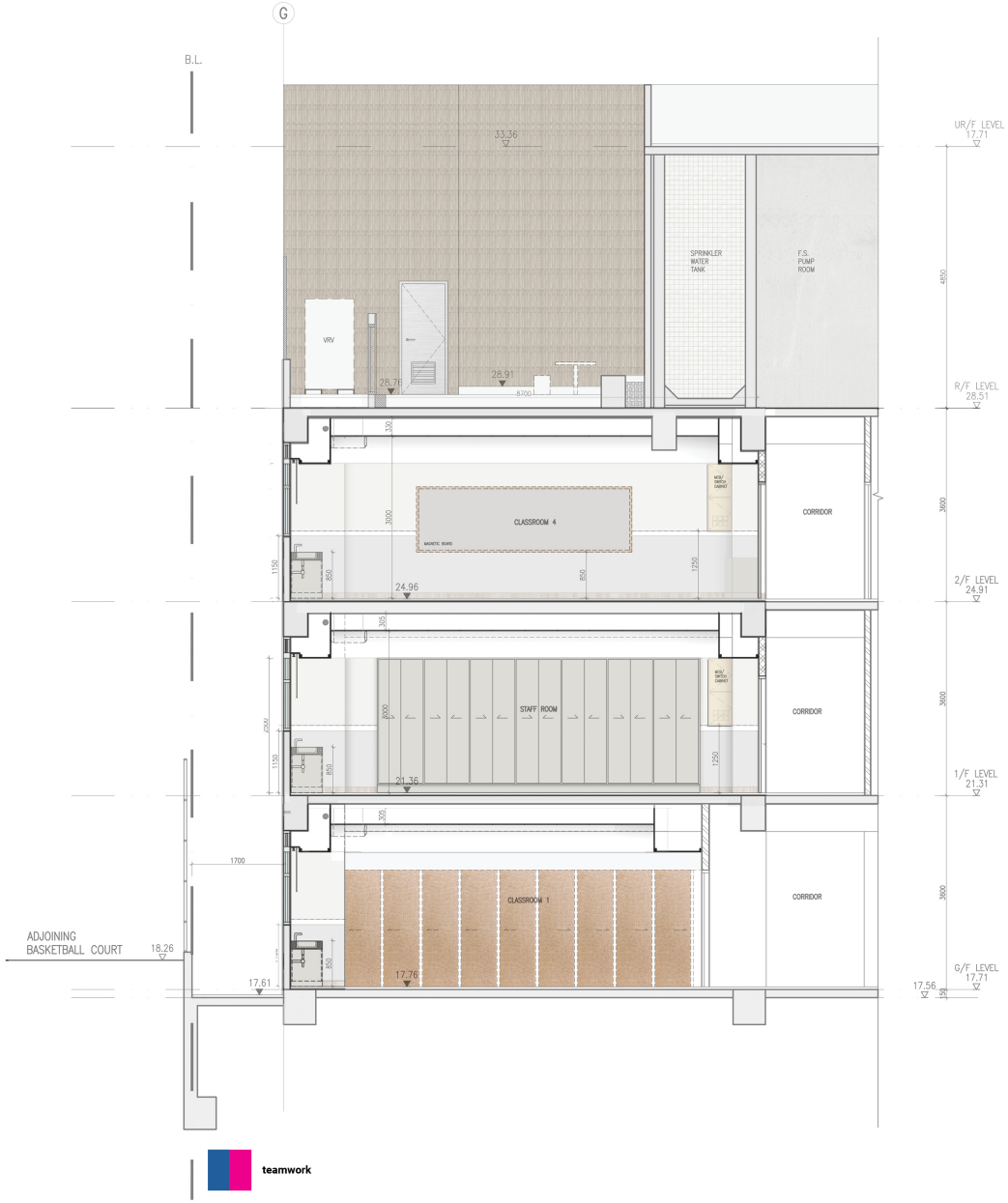
- created feasibility study schemes and comprehensive evaluation in PRE stage
- competed schematic design for building approval submission and clients' evaluations in SD stage
- completed in design development - refining design, detailing plans, material selections, and preparing construction documentation in DD stage
- Participated in construction documentation stage with experienced architects and draftpersons - drafting technical construction drawings for tendering and contract purpose in CD stage

02 SPECIAL SCHOOL EXTENSION

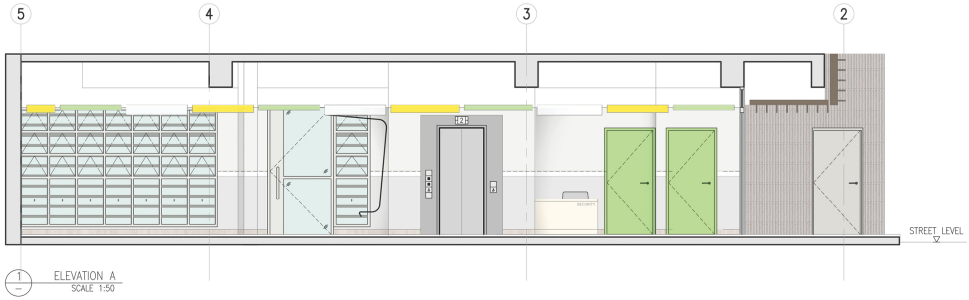
Tuen Mun, Hong Kong | Working Drawings | 2019 - 2022 | Completed in 2023
Client: Architectural Service Department, Hong Kong

An annex building for a special school in Tuen Mun, Hong Kong, features six classrooms and additional learning spaces. Its internal zig-zag façade is designed to avoid conflicts with underground drainage reserve facilities, ensuring continuous accessibility and serviceability throughout the school's lifespan while maintaining functional and efficient spatial planning.

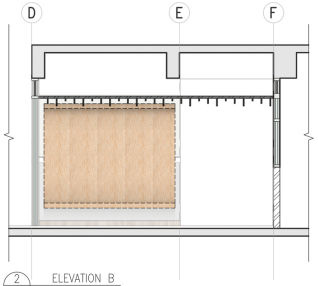




teamwork



1 ELEVATION A
SCALE 1:50



2 ELEVATION B
SCALE 1:50

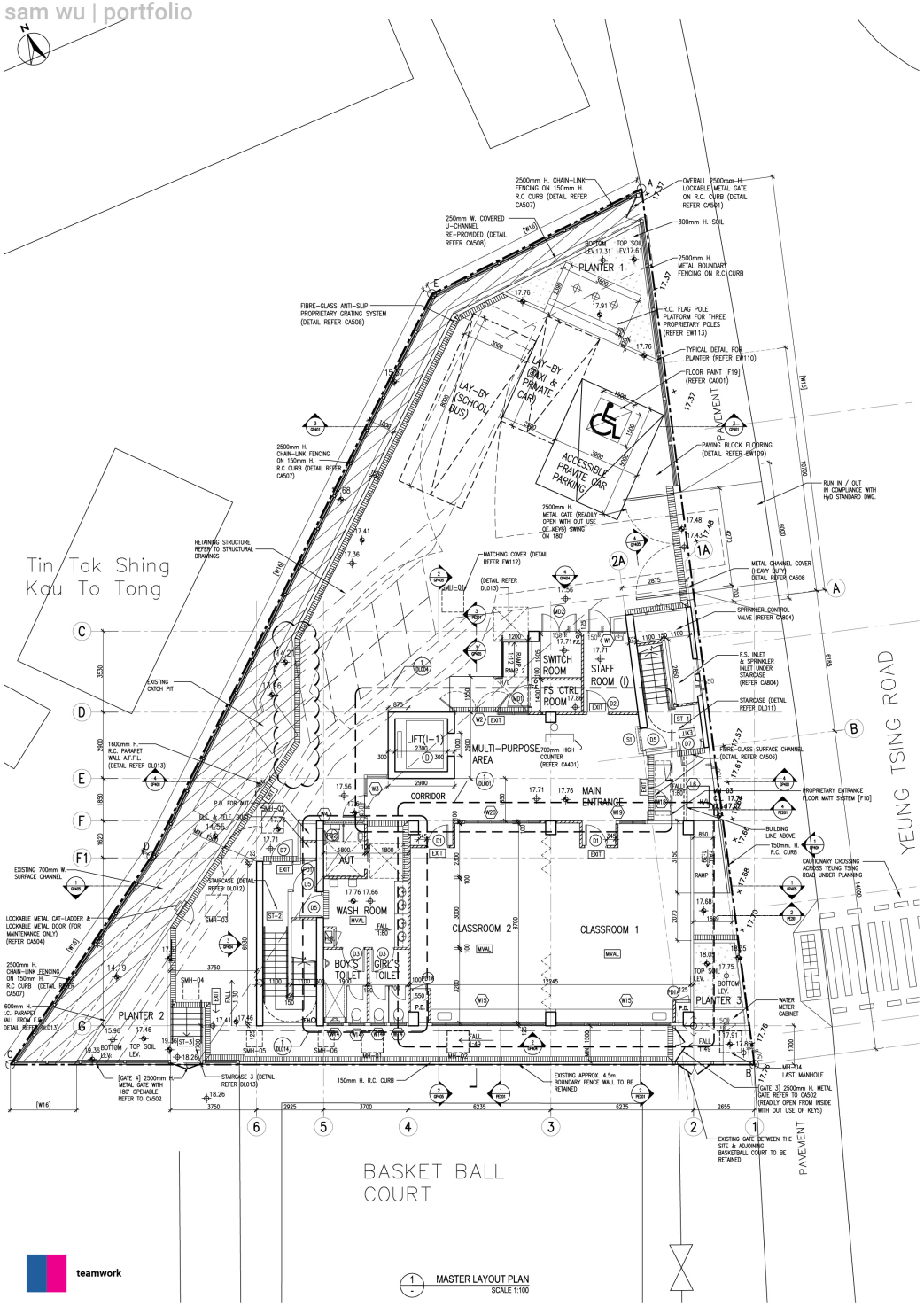
My contribution:

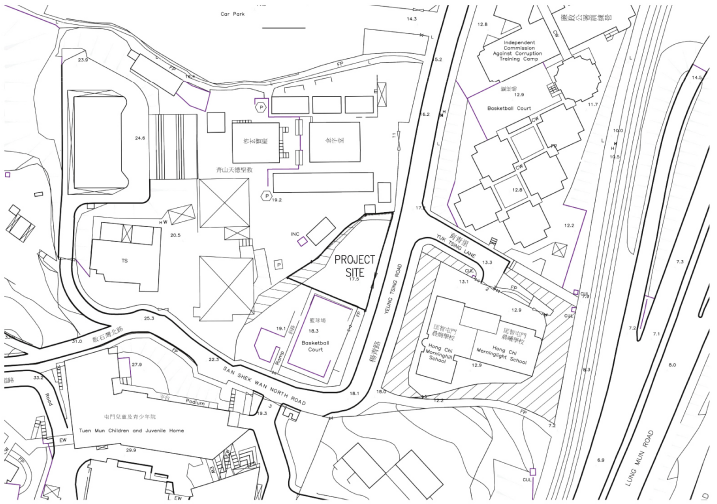
- created 3D model and v-ray renderings for tender documents
- completed interior and exterior building material selection
- assisted in creating all buiding sections and detail sections in 1:50 scale
- created the setting out plan, main site plan under experienced architect's supervision
- assisted in final building code evaluation before coompleting CD stage
- created site sections after site visits and site measurement

teamwork

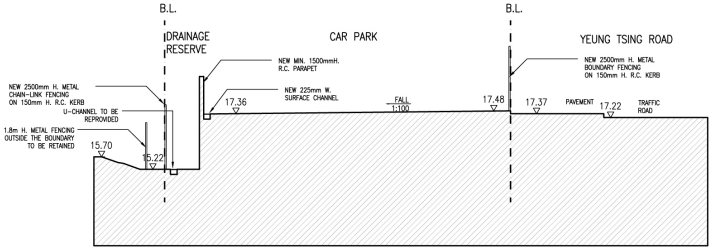


solo

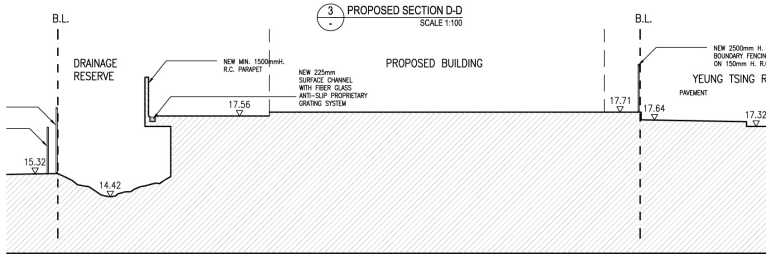




2 LOCATION PLAN SCALE 1:1000



3 PROPOSED SECTION D-D SCALE 1:100



4 PROPOSED SECTION E-E SCALE 1:100

ABBREVIATION

R.C.	REINFORCED CONCRETE
H.W.	HIGH LEVEL WINDOW
M.L.	METAL LOUVRES
P.D.	PIPE DUCT
A.P.	ACCESS PANEL
F.F.L.	FINISHED FLOOR LEVEL
mm	MILLIMETRE
LEV.	LEVEL
TRS	TEMPORARY REFUGE SPACE
AUT	ACCESSIBLE UNISEX TOILET
B.L.	BOUNDARY LINE
M.H.	MANHOLE

LEGEND

PLANTER

DRAINAGE RESERVE AREA

CONC. BLOCK WALL

MVAL — MECHANICAL VENTILATION & ARTIFICIAL LIGHTING

WATERCLOSET

URINAL

BASIN

DRINK FOUNTAIN

SINK

LEVEL DIFFERENCE

CHAIN-LINK FENCE

METAL FENCE

SURFACE CHANNEL

D — DOOR MARK

W — WINDOW/LOUVRE MARK

STRUCTURAL FLOOR LEVEL

FINISHED FLOOR LEVEL

EXIT — EXIT SIGN

EXIT — DIRECTIONAL EXIT SIGN

H.R. — HOSE REEL

SITE BOUNDARY LINE

ACCESSIBLE LIFT

SETTING OUT POINT

ST-2 — STAIRCASE

F.H. — F.E. — S.B.

MECHANICAL VENTILATION & ARTIFICIAL LIGHTING

TENDER DRAWING

REV.	DATE	DESCRIPTION
2	19/10/25	GENERAL REVISION
1	19/10/21	GENERAL REVISION

JOB NO. 31202

PROJECT

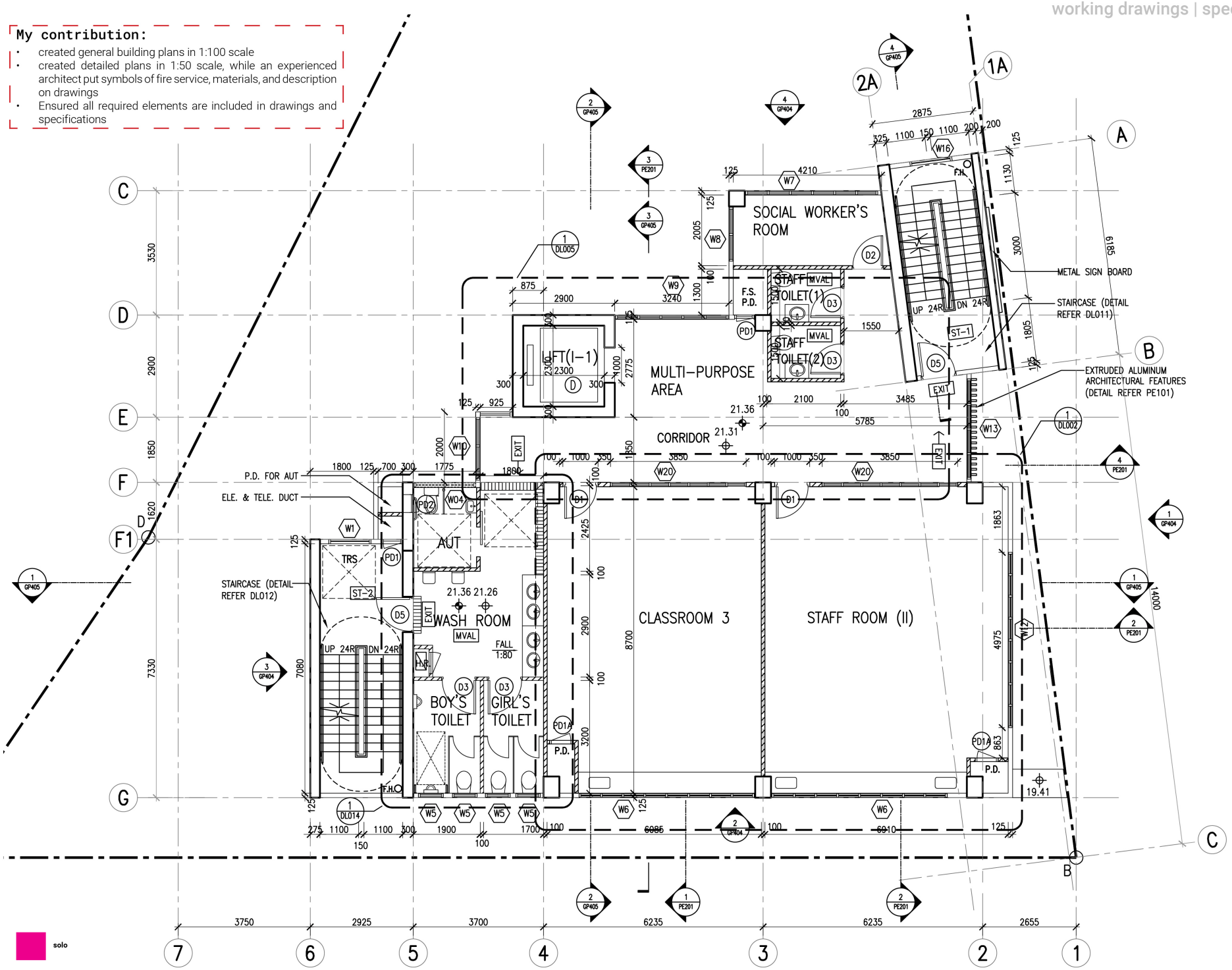
DRAWING TITLE
LOCATION PLAN, MASTER LAYOUT PLAN, SITE SECTIONS & LEGENDS

SCALE	DATE
AS SHOWN	05/2019
DRAWN: VC	CHECKED: VL
DRAWING NO.	REV.

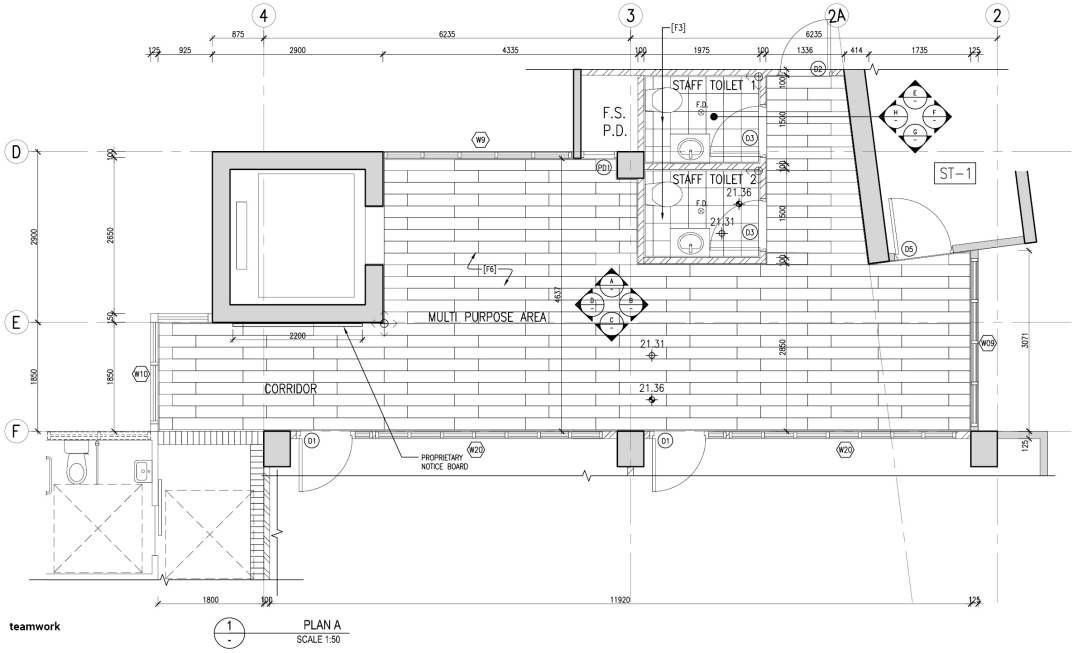
teamwork

My contribution:

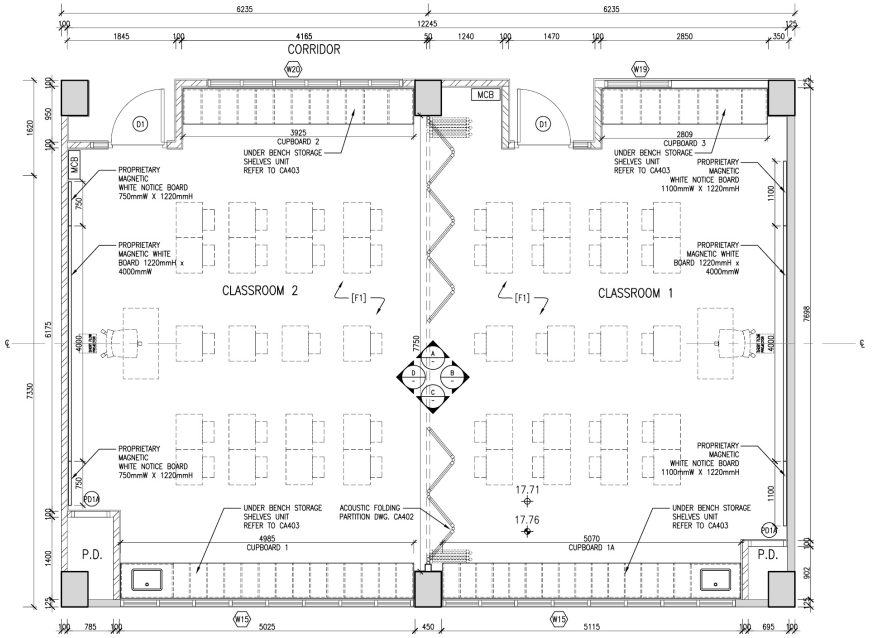
- created general building plans in 1:100 scale
- created detailed plans in 1:50 scale, while an experienced architect put symbols of fire service, materials, and description on drawings
- Ensured all required elements are included in drawings and specifications



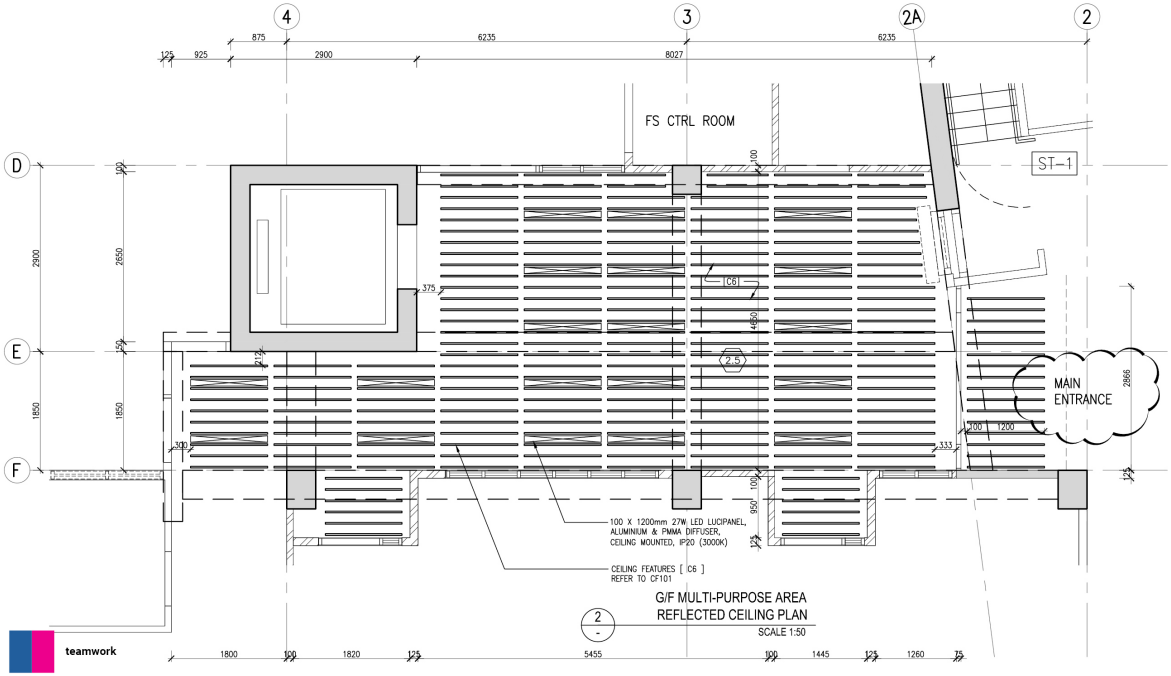
solo



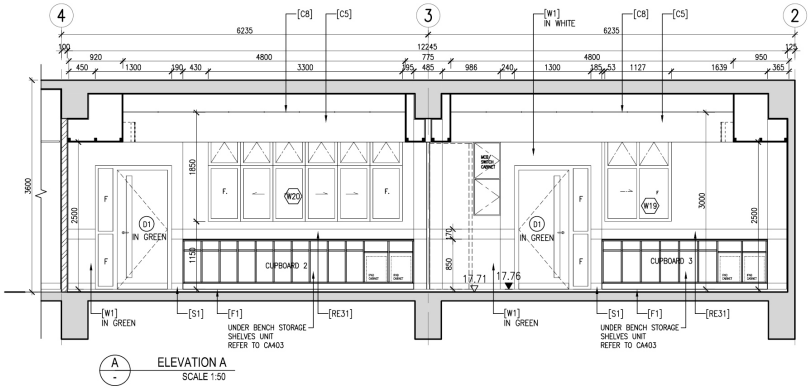
1 PLAN A
SCALE 1:50



1 PLAN
SCALE 1:50



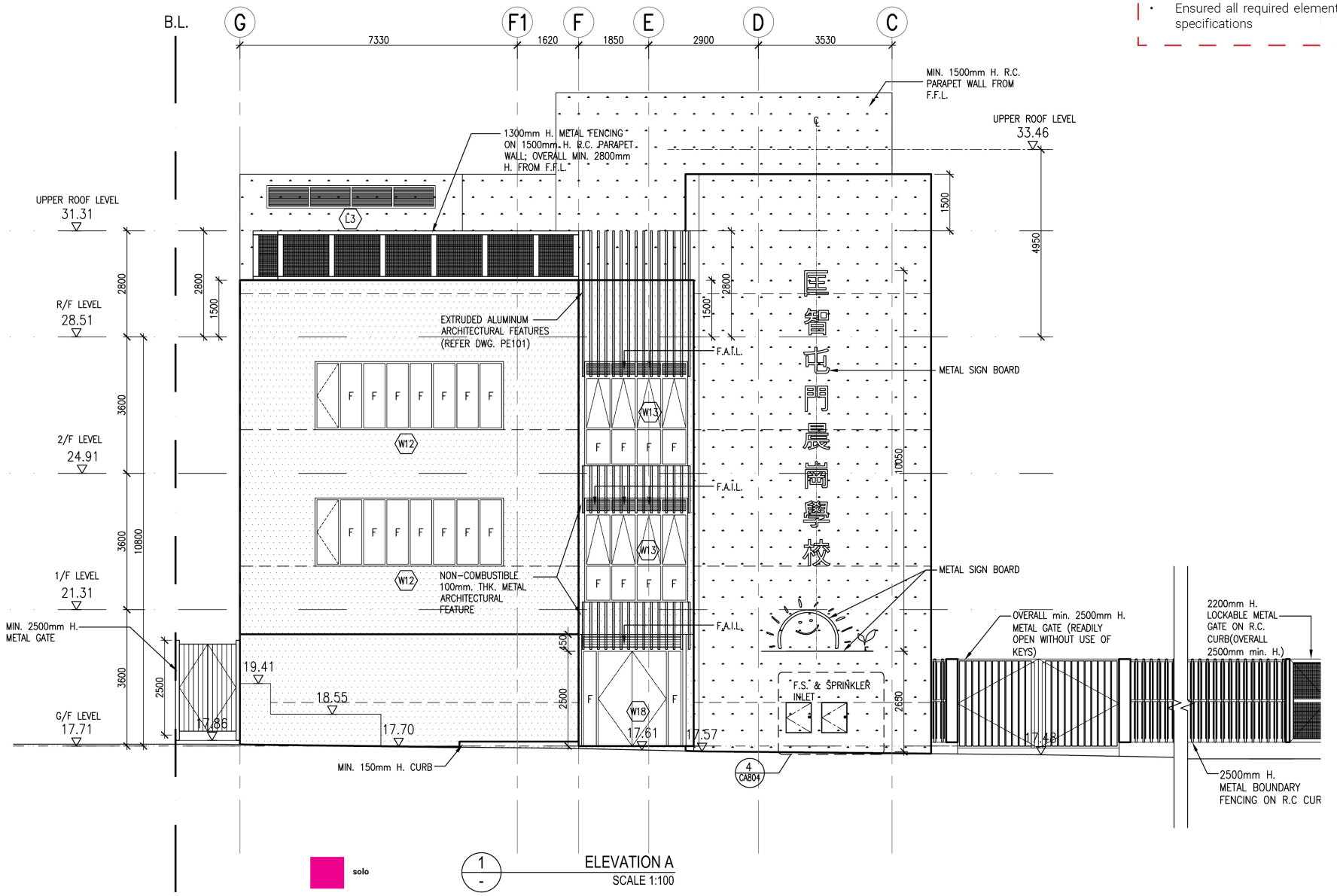
2 G/F MULTI-PURPOSE AREA
REFLECTED CEILING PLAN
SCALE 1:50



A ELEVATION A
SCALE 1:50

My contribution:

- created all building elevations and sections in 1:100 scale
- created architecture feature applied to main facade
- Ensured all required elements are included in drawings and specifications



1 / - ELEVATION A
SCALE 1:100

TENDER DRAWING

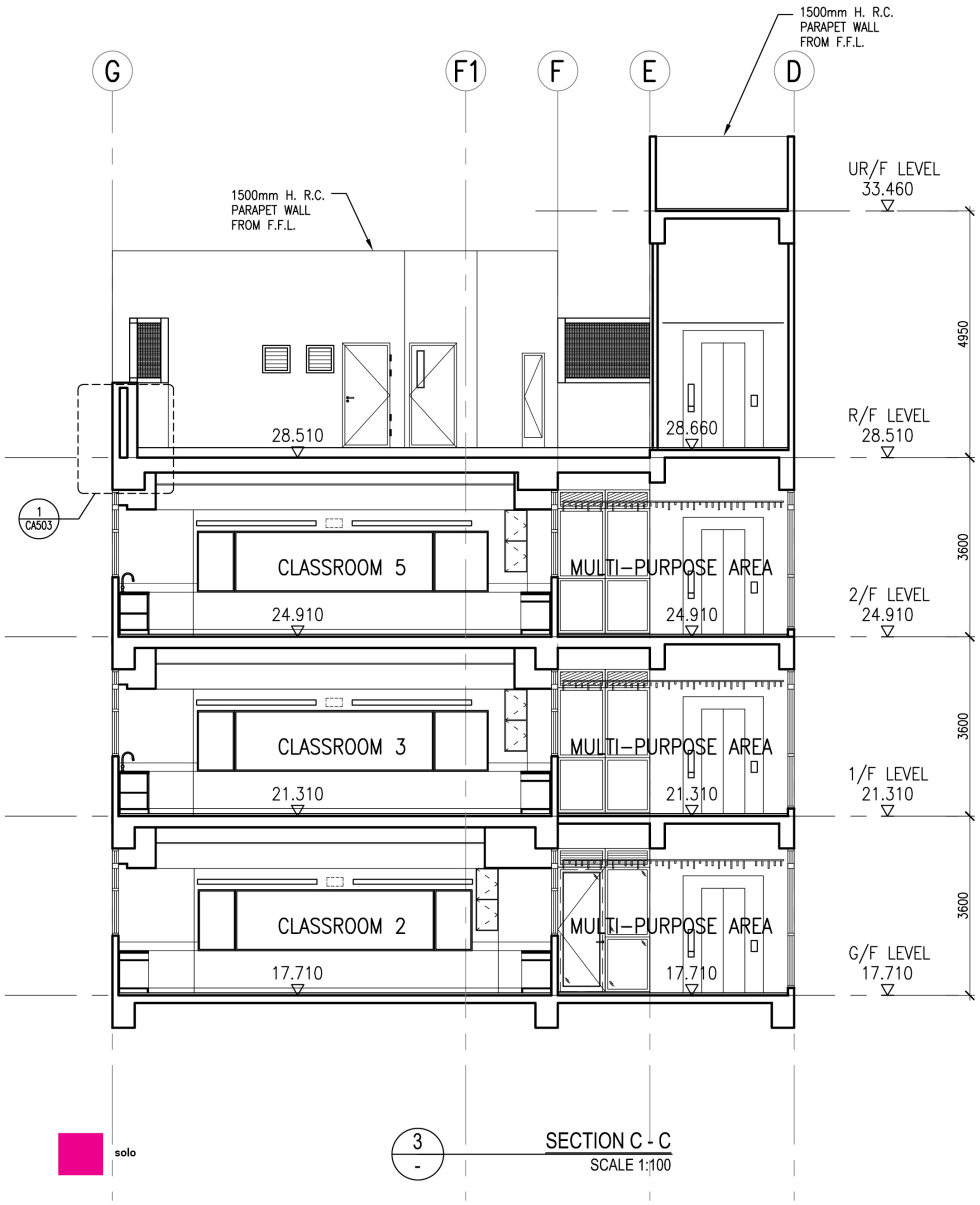
REV.	DATE	DESCRIPTION
2	19/10/25	GENERAL REVISION
1	19/10/21	GENERAL REVISION

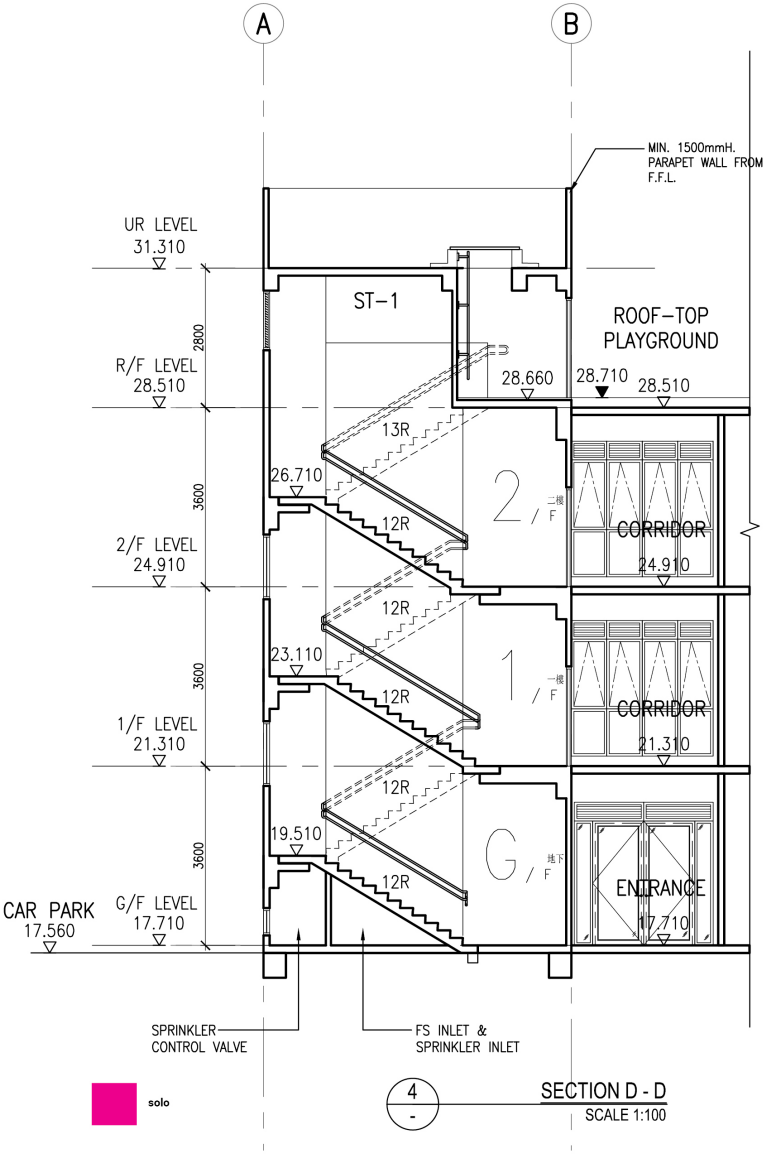
JOB NO. 31202

PROJECT

DRAWING TITLE
ELEVATIONS

SCALE	DATE
1:100	05/2019
DRAWN: VC	CHECKED: VL
DRAWING NO.: AB/843B/GP404	REV.: 2





solo

3
-
SECTION C - C
SCALE 1:100

solo

4
-
SECTION D - D
SCALE 1:100

TENDER DRAWING

REV.	DATE	DESCRIPTION
1	19/10/21	GENERAL REVISION

JOB NO.
31202

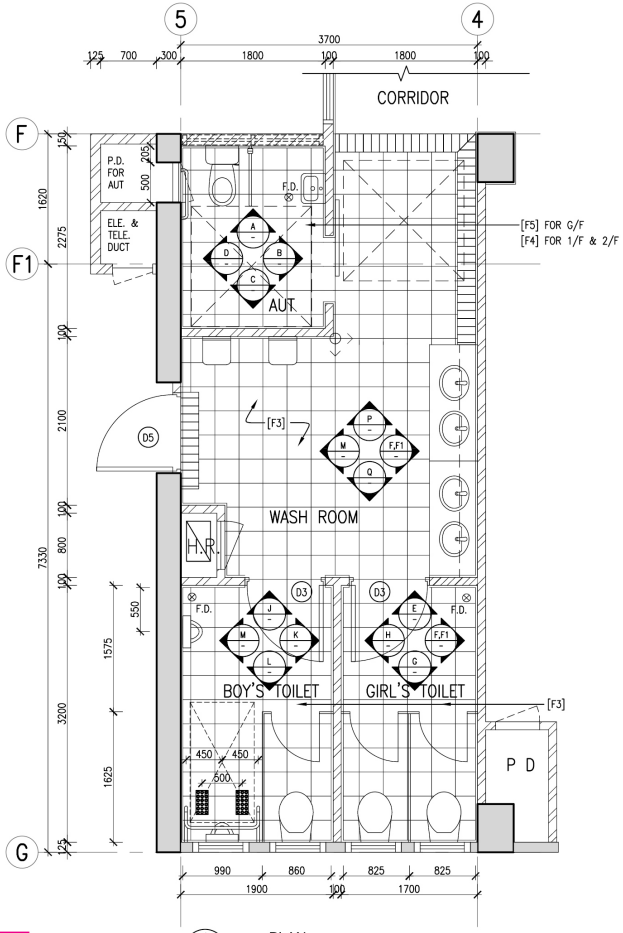
PROJECT

DRAWING TITLE
SECTIONS A-A, B-B, C-C & D-D

SCALE	DATE
1:100	05/2019
DRAWN	CHECKED
VC	VL
DRAWING NO.	REV.
AB/8438/GP405	1

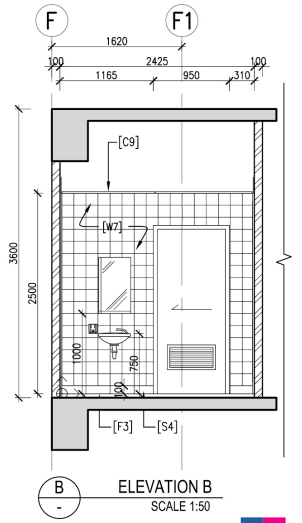
My contribution:

- created detailed plans and elevations of WASH ROOM in 1:50 scale with experienced draftspersons
- applied material and plumbling fixtures to drawings
- assisted in creating door schedule; specification and description completed by an experienced architect
- Ensured all required elements are included in drawings and specifications

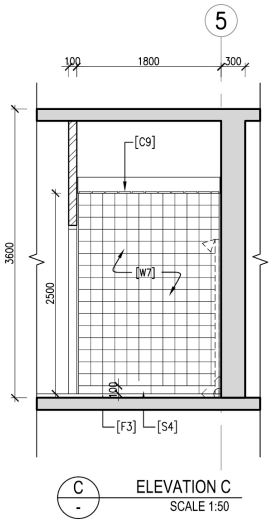


1 - PLAN
SCALE 1:50

solo

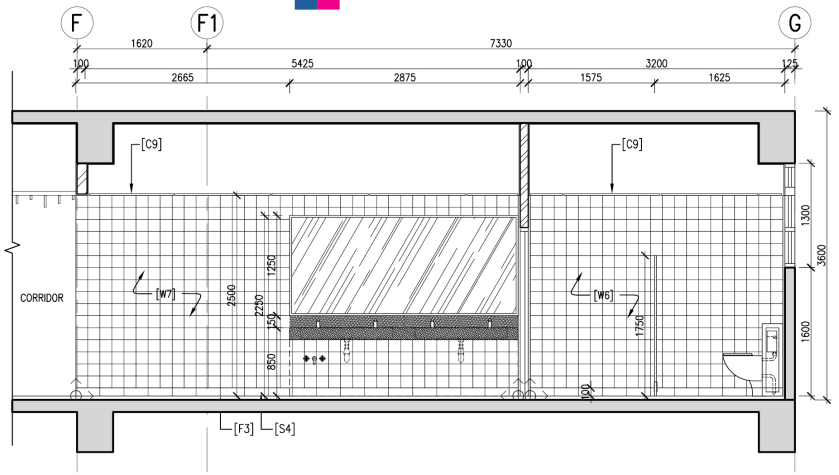


B - ELEVATION B
SCALE 1:50



C - ELEVATION C
SCALE 1:50

teamwork



F1 - ELEVATION F(FOR FIRST FLOOR & SECOND FLOOR)
SCALE 1:50

teamwork

TENDER DRAWING

REV.	DATE	DESCRIPTION
1	19/10/21	GENERAL REVISION

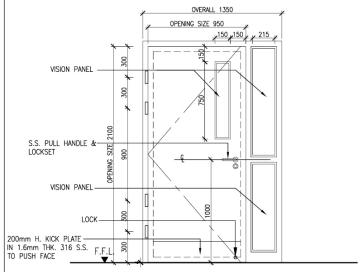
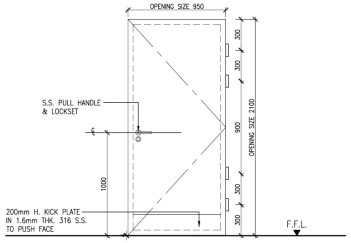
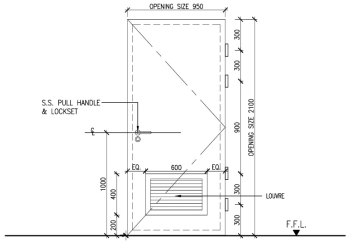
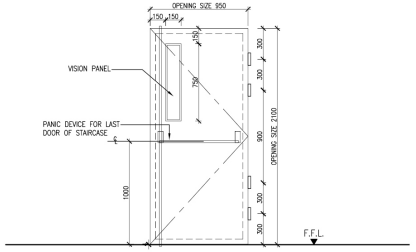
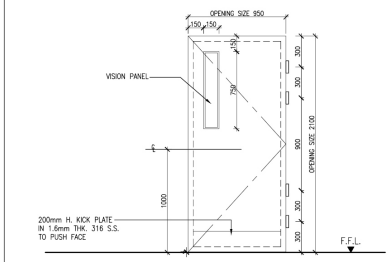
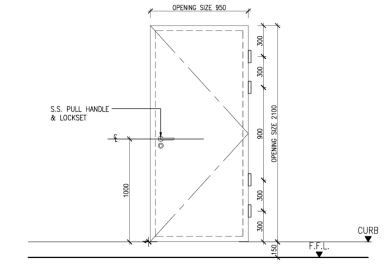
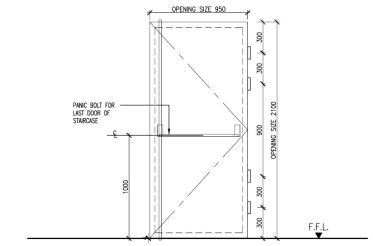
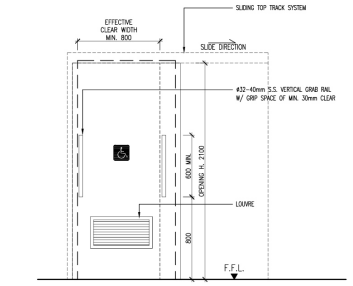
JOB NO.
31202

PROJECT

DRAWING TITLE
LAYOUT & ELEVATIONS OF TYPICAL WASH RM, BOYS' & GIRLS' TOILET

SCALE	DATE
1:50	09/2019
DRAWN	CHECKED
VC	VL
DRAWING NO.	REV.
AB/8438/DL014	1

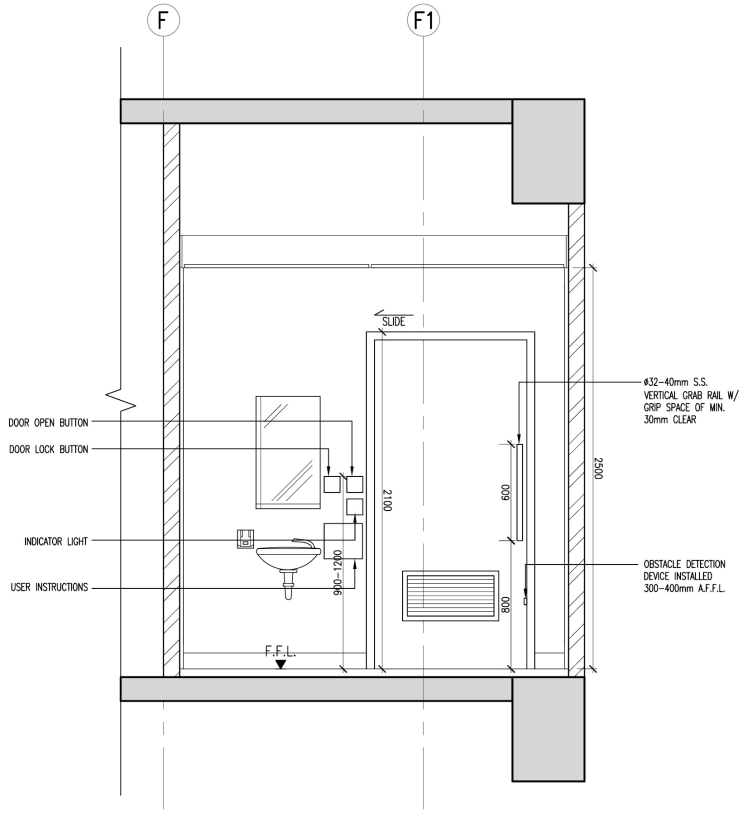
teamwork

ELEVATION				
DOOR MARK	D1	D2	D3	D4
OPENING SIZE	950mm(W) x 2100mm(H) , 1350mm OVERALL	950mm(W) x 2100mm(H)	950mm(W) x 2100mm(H)	950mm(W) x 2100mm(H)
LOCATION	CLASSROOMS, STAFF ROOM AT 1/F, SPEECH THERAPY ROOM	STAFF ROOM AT G/F, SOCIAL WORKER'S ROOM & SPEECH THERAPY ROOM	BOY'S TOILET. GIRL'S TOILET AND STAFF TOILET	STAIRCASE AT ROOF
FRAME CONSTRUCTION	TIMBER FRAME WITH TIMBER ARCHITRAVE IN MATT PAINT FINISH WITH MATCHING COLOUR TO DOOR PANEL	TIMBER FRAME WITH TIMBER ARCHITRAVE IN MATT PAINT FINISH WITH MATCHING COLOUR TO DOOR PANEL	TIMBER FRAME WITH TIMBER ARCHITRAVE IN MATT PAINT FINISH WITH MATCHING COLOUR TO DOOR PANEL	MIN. 1.7mm THK. G.M.S. FRAME FINISHED IN PVDF COATING IN STANDARD RAL COLOUR
DOOR PANEL CONSTRUCTION	SOLID TIMBER CORE DOOR WITH 1.0mm THK. PLASTIC LAMINATE ON BOTH SIDES AND CLEAR TEMPERED GLASS VISION PANEL. HARDWOOD LIPPING AROUND AND COLOR TO MATCH DOOR PANEL.	SOLID TIMBER CORE DOOR WITH 1.0mm THK. PLASTIC LAMINATE ON BOTH SIDES HARDWOOD LIPPING AROUND AND COLOR TO MATCH DOOR PANEL.	SOLID TIMBER CORE DOOR WITH 1.0mm THK. PLASTIC LAMINATE ON BOTH SIDES HARDWOOD LIPPING AROUND AND COLOR TO MATCH DOOR PANEL.	MIN. 1.3mm THK. G.M.S. CLADDING ON G.M.S. STRUCTURAL FRAME WITH (–/60/60) FIRE RESISTANCE RATING & CLEAR FIRE–RESISTANCE–RATING GLASS VISION PANEL; DOOR TO BE FINISHED IN PVDF COATING IN STANDARD RAL COLOR
FIRE RESISTANCE RATING	–	–	–	(–/60/60) FOR DOOR AT STAIRCASE ST–1 ROOF ONLY
REMARKS	MASTER KEY SYSTEM AND KEY ALIKE SYSTEM INCLUDED; DOOR STOP TO BE PROVIDED; TIMBER TRIMMER TO BE FINISHED IN MATT PAINTING WITH MATCHING COLOR TO DOOR PANEL; SELF–CLOSING DOOR.	MASTER KEY SYSTEM AND KEY ALIKE SYSTEM INCLUDED; DOOR STOP TO BE PROVIDED; TIMBER TRIMMER TO BE FINISHED IN MATT PAINTING WITH MATCHING COLOR TO DOOR PANEL; SELF–CLOSING DOOR.	MASTER KEY SYSTEM AND KEY ALIKE SYSTEM INCLUDED; DOOR STOP TO BE PROVIDED; TIMBER TRIMMER TO BE FINISHED IN MATT PAINTING WITH MATCHING COLOR TO DOOR PANEL; SELF–CLOSING DOOR.	SELF–CLOSING DOOR; FIRE & SMOKE SEAL ALL AROUND THE DOOR WITH SMOKE DROP SEAL AT THE BOTTOM (FOR FRR DOOR ONLY); DOOR STOP TO BE PROVIDED;TIMBER TRIMMER TO BE FINISHED IN MATT PAINTING WITH MATCHING COLOR TO DOOR PANEL; PANIC DEVICE SIGNAL TO BE CONNECTED TO STAFF ROOM SIGNAL BOARD
ELEVATION				
DOOR MARK	D5	D6	D7	D8
OPENING SIZE	950mm(W) x 2100mm(H)	950mm(W) x 2100mm(H)	950mm(W) x 2100mm(H)	800mm min. (W) x 2100mm(H)
LOCATION	STAIRCASE	FS & SPRINKLER PUMP ROOM	EXIT DOOR AT G/F OF STAIRCASE ST–1, ST–2	AUTs
FRAME CONSTRUCTION	TIMBER FRAME WITH TIMBER ARCHITRAVE IN MATT PAINT FINISH WITH MATCHING COLOUR TO DOOR PANEL	TIMBER FRAME WITH TIMBER ARCHITRAVE IN MATT PAINT FINISH WITH MATCHING COLOUR TO DOOR PANEL	MIN. 1.7mm THK. G.M.S. FRAME FINISHED IN PVDF COATING IN STANDARD RAL COLOUR	N.I.L.
DOOR PANEL CONSTRUCTION	SOLID TIMBER CORE DOOR WITH 1.0mm THK. PLASTIC LAMINATE ON BOTH SIDES AND CLEAR TEMPERED GLASS VISION PANEL. HARDWOOD LIPPING AROUND AND COLOR TO MATCH DOOR PANEL.	SOLID TIMBER CORE DOOR WITH 1.0mm THK. PLASTIC LAMINATE ON BOTH SIDES HARDWOOD LIPPING AROUND AND COLOR TO MATCH DOOR PANEL.	MIN. 1.3mm THK. G.M.S. CLADDING ON G.M.S. STRUCTURAL FRAME WITH (–/60/60) FIRE RESISTANCE RATING ; DOOR TO BE FINISHED IN PVDF COATING IN STANDARD RAL COLOR	18mm THK. PLYWOOD WITH 1.0mm THK. PLASTIC LAMINATE ON BOTH SIDES ON 80x40x4mm THK. RHS. G.M.S. STRUCTURAL FRAME WITH 50x80x2mm THK. S.S. END CAP AROUND THE DOOR PANEL
FIRE RESISTANCE RATING	(–/60/60)	(–/60/60)	(–/60/60)	–
REMARKS	SELF–CLOSING DOOR; FIRE & SMOKE SEAL ALL AROUND THE DOOR WITH SMOKE DROP SEAL AT THE BOTTOM ; DOOR STOP TO BE PROVIDED;TIMBER TRIMMER TO BE FINISHED IN MATT PAINTING WITH MATCHING COLOR TO DOOR PANEL; PANIC DEVICE SIGNAL TO BE CONNECTED TO STAFF ROOM SIGNAL BOARD	MASTER KEY SYSTEM AND KEY ALIKE SYSTEM. SELF–CLOSING DOOR; TIMBER TRIMMER TO BE FINISH IN MATT PAINTING WITH MATCHING COLOUR TO DOOR PANEL; FIRE & SMOKE SEAL ALL AROUND THE DOOR WITH SMOKE DROP SEAL AT THE BOTTOM; DOOR STOP TO BE PROVIDED	THE LOCKING DEVICE SHOULD BE OF THE TYPE THAT IS CAPABLE OF BEING READILY OPENED FROM INSIDE WITHOUT THE USE OF KEY. PANIC DEVICE SIGNAL TO BE CONNECTED TO STAFF ROOM SIGNAL BOARD;SELF–CLOSING DOOR; FIRE & SMOKE SEAL ALL AROUND THE DOOR WITH SMOKE DROP SEAL AT THE BOTTOM; DOOR STOP TO BE PROVIDED	ASSEMBLING DETAIL REFER TO CA105; THE SLIDING DOOR SYSTEM IS POWER OPERATED;

toilet elevation and door detail

My contribution:

- created detailed plans, elevations and assembly details of disabled toilet with automatic sliding door and pre-cast staircase
- applied my experience on prrecast structure gained from previous role
- communicated with statutory checkers on the design of an automatic sliding door to a disabled toilet

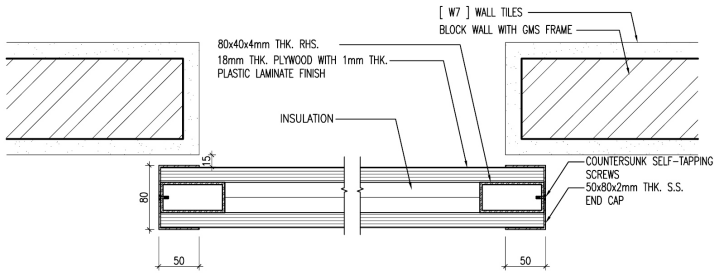


NOTE: BILINGUAL CHARACTERS AND BRAILLE AND TACTILE MARKINGS SHOULD BE PROVIDED FOR CONTROL BUTTONS & USER INSTRUCTIONS

BACK–UP EMERGENCY POWER SUPPLY SHOULD BE PROVIDED FOR AT LEAST 20 MINS. IN POWER FAILURE SITUATION.

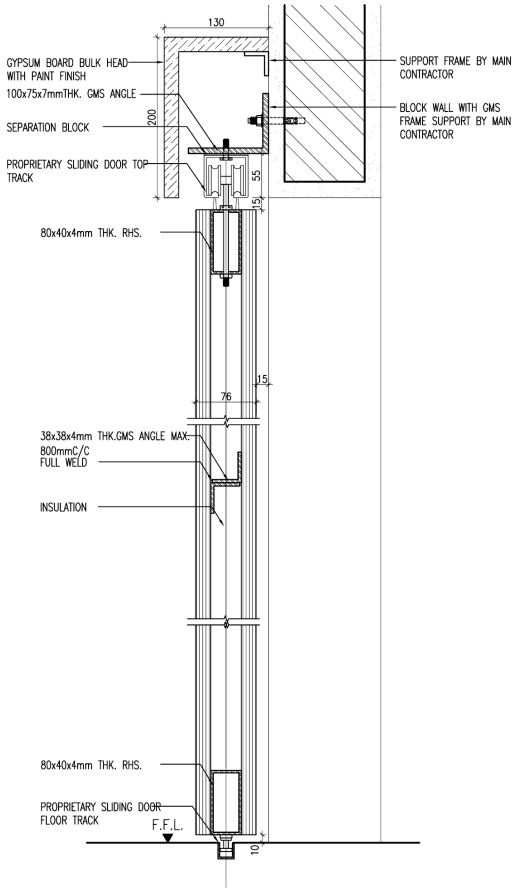
solo

2 - TYP. ACCESSIBLE UNISEX TOILET - INTERNAL
SCALE 1:25



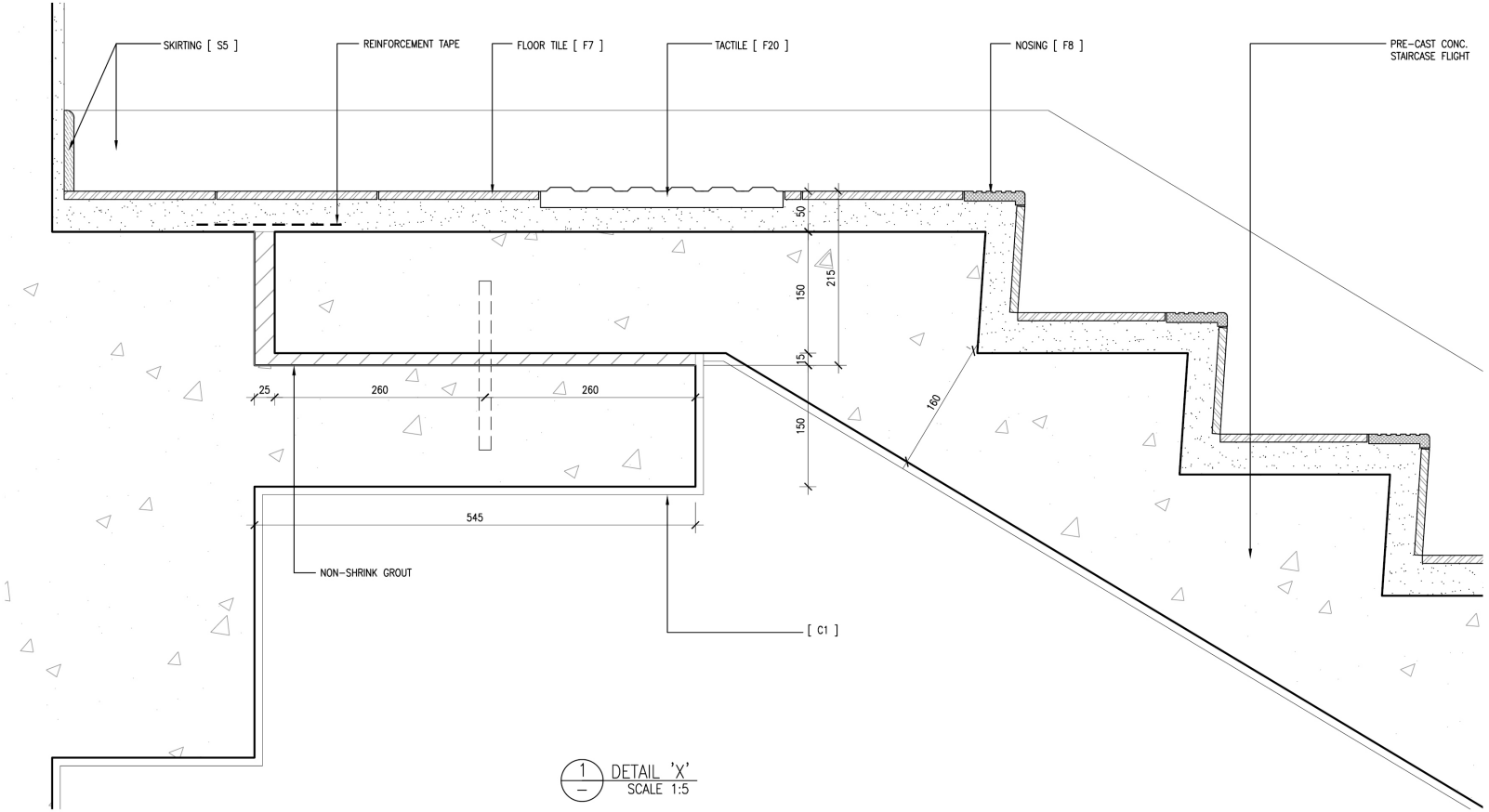
solo

4 - HORIZONTAL SECTION
SCALE 1:5

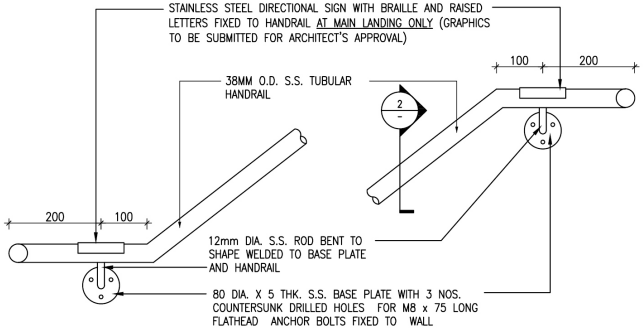


teamwork

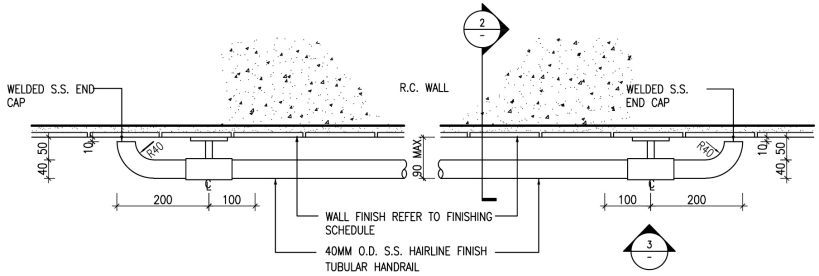
3 - VERTICAL SECTION
SCALE 1:5



1 — DETAIL 'X'
SCALE 1:5



3 — TYP. HANDRAIL DETAIL B
SCALE 1:10

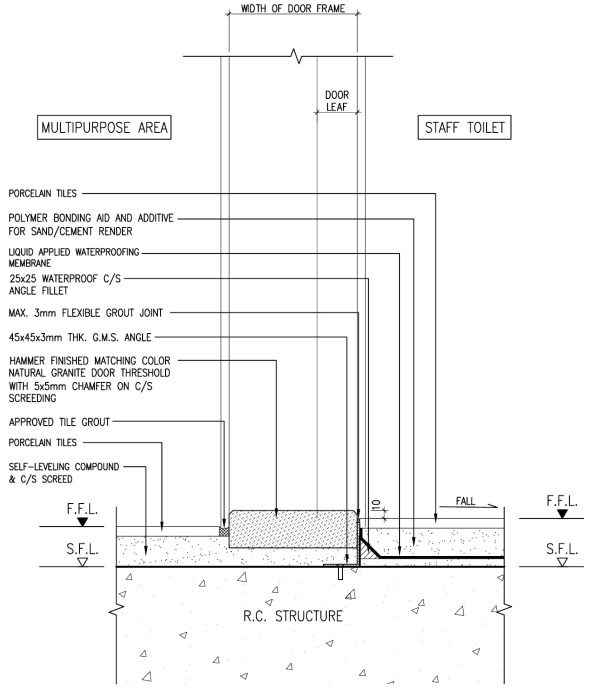


1 — TYP. HANDRAIL PLAN
SCALE 1:10

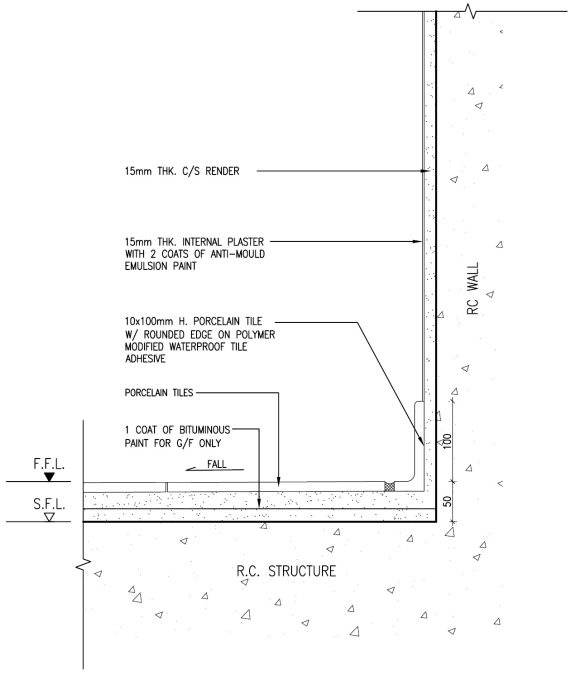
threshold floor detail

My contribution:

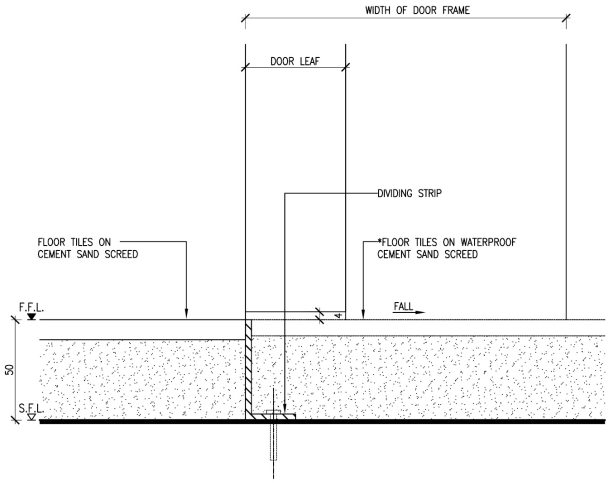
- created detail drawing of parapet wall-roof waterproof system with raised timber deck
- created wall/floor and threshold details
- applied my experience on waterproofing construction gained from previous role



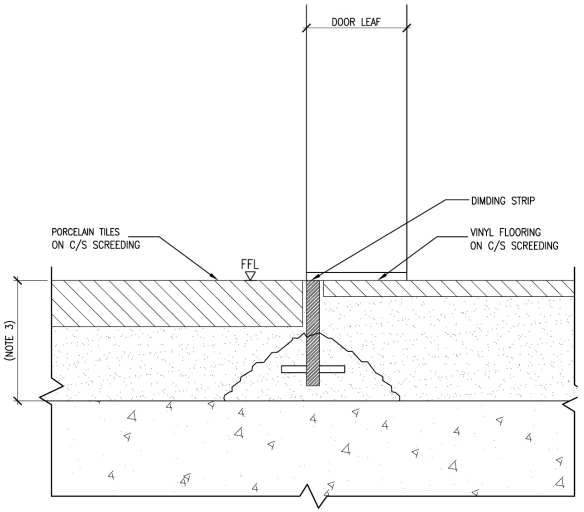
1 - THRESHOLD DETAIL - FOR STAFF TOILET TOILET
SCALE 1:5



2 - C/S WALL & TILE SKIRTING
SCALE 1:5

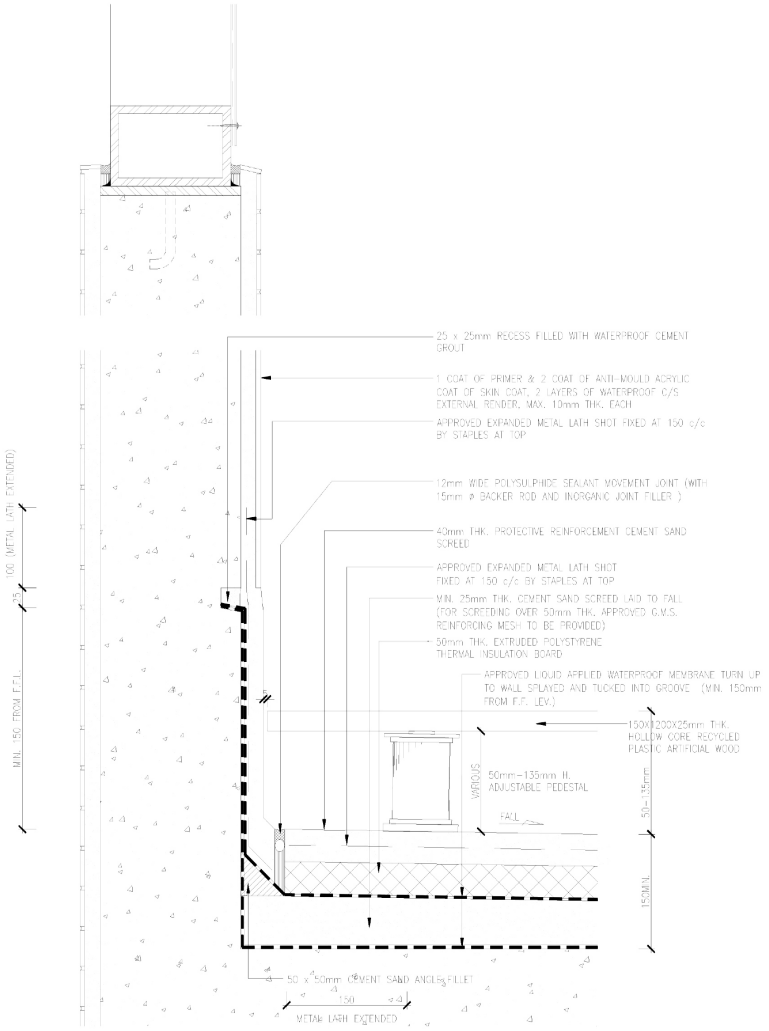


1 - TYPICAL TRANSITION BETWEEN TILE & WATERPROOF TILE
SCALE 1:2

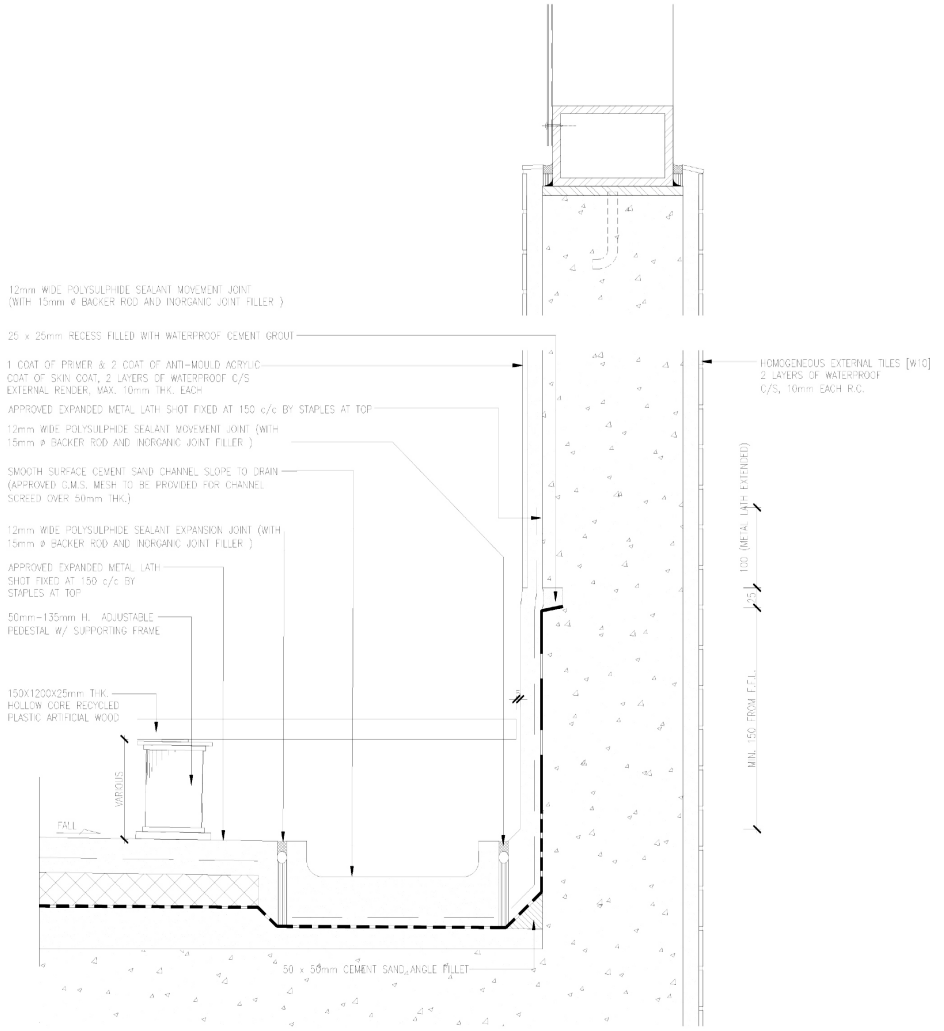


2 - TYPICAL TRANSITION BETWEEN VINYL FLOOR & TILE
SCALE 1:2

parapet wall and roof surface detail



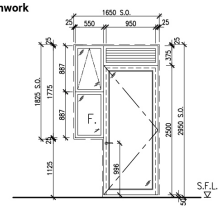
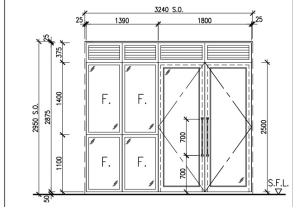
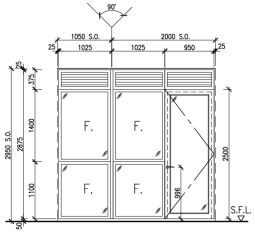
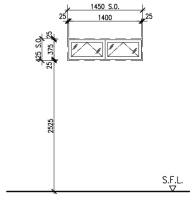
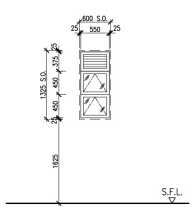
1 - DETAIL SECTION AT R.C. WALL
SCALE 1:5

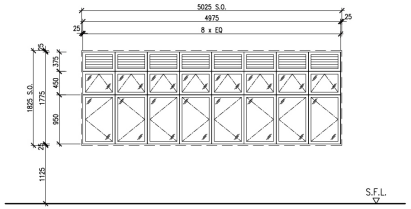
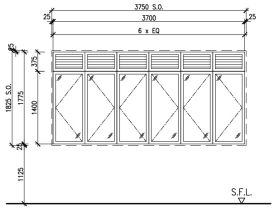
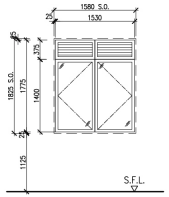
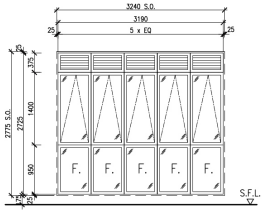
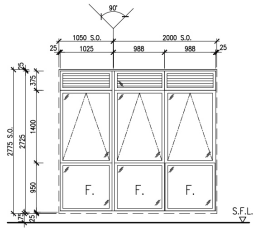


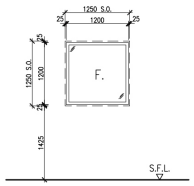
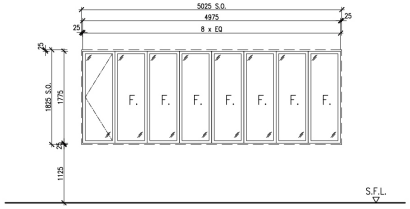
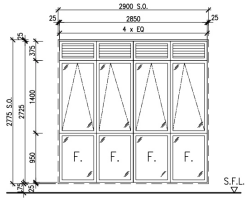
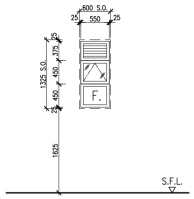
2 - DETAIL SECTION AT CHANNEL
SCALE 1:5

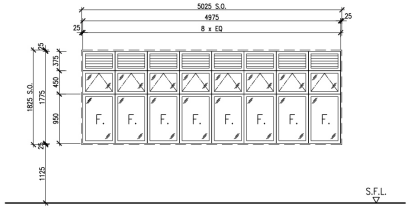
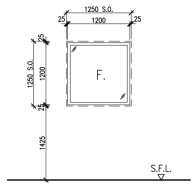
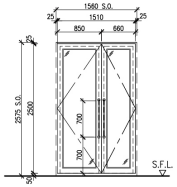
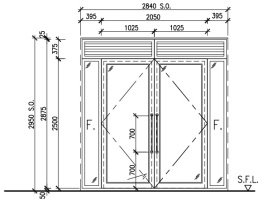
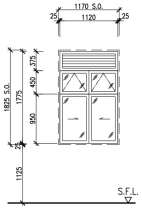
windows schedule

teamwork

ELEVATION						
WINDOW MARK	W1	W2	W3	W4	W5	
GLAZING	MIN. 10mm THK. CLEAR TEMPERED GLASS FOR WINDOWS MIN. 12mm THK. CLEAR TEMPERED GLASS FOR DOOR	MIN. 10mm THK. CLEAR TEMPERED GLASS FOR WINDOWS MIN. 12mm THK. CLEAR TEMPERED GLASS FOR DOOR	MIN. 10mm THK. CLEAR TEMPERED GLASS FOR WINDOWS MIN. 12mm THK. CLEAR TEMPERED GLASS FOR DOOR	MIN. 10mm THK. CLEAR TEMPERED GLASS	MIN. 10mm THK. CLEAR TEMPERED GLASS	
LOCATION	STAFF ROOM AT G/F	MULTI-PURPOSE AREA	CORRIDOR	AUT	BOY'S AND GRL'S TOILET AT 1/F & 2/F	
REMARKS	1. ALL WINDOW SHALL ACCOMPANIED WITH IRONMONGERY ; 2. ALL SURFACES EXPOSED TO VIEW SHALL BE IN PVDF COATING IN STANDARD RAL COLOR; 3. WEATHER PROOF ALUMINUM LOUVRE SHOULD BE PROVIDED; 4. MASTER KEY SYSTEM AND KEY ALIKE SYSTEM INCLUDED; 5. DOOR STOP TO BE PROVIDED; 6. SELF-CLOSING DOOR.	1. ALL WINDOW SHALL ACCOMPANIED WITH IRONMONGERY ; 2. ALL SURFACES EXPOSED TO VIEW SHALL BE IN PVDF COATING IN STANDARD RAL COLOR; 3. WEATHER PROOF ALUMINUM LOUVRE SHOULD BE PROVIDED; 4. MASTER KEY SYSTEM AND KEY ALIKE SYSTEM INCLUDED; 5. DOOR STOP TO BE PROVIDED; 6. SELF-CLOSING DOOR.	1. ALL WINDOW SHALL ACCOMPANIED WITH IRONMONGERY ; 2. ALL SURFACES EXPOSED TO VIEW SHALL BE IN PVDF COATING IN STANDARD RAL COLOR; 3. WEATHER PROOF ALUMINUM LOUVRE SHOULD BE PROVIDED; 4. MASTER KEY SYSTEM AND KEY ALIKE SYSTEM INCLUDED; 5. DOOR STOP TO BE PROVIDED; 6. SELF-CLOSING DOOR.	1. ALL WINDOW SHALL ACCOMPANIED WITH IRONMONGERY 2. ALL SURFACES EXPOSED TO VIEW SHALL BE IN PVDF COATING IN STANDARD RAL COLOR	1. ALL WINDOW SHALL ACCOMPANIED WITH IRONMONGERY 2. ALL SURFACES EXPOSED TO VIEW SHALL BE IN PVDF COATING IN STANDARD RAL COLOR 3. WEATHER PROOF ALUMINUM LOUVRE SHOULD BE PROVIDED.	

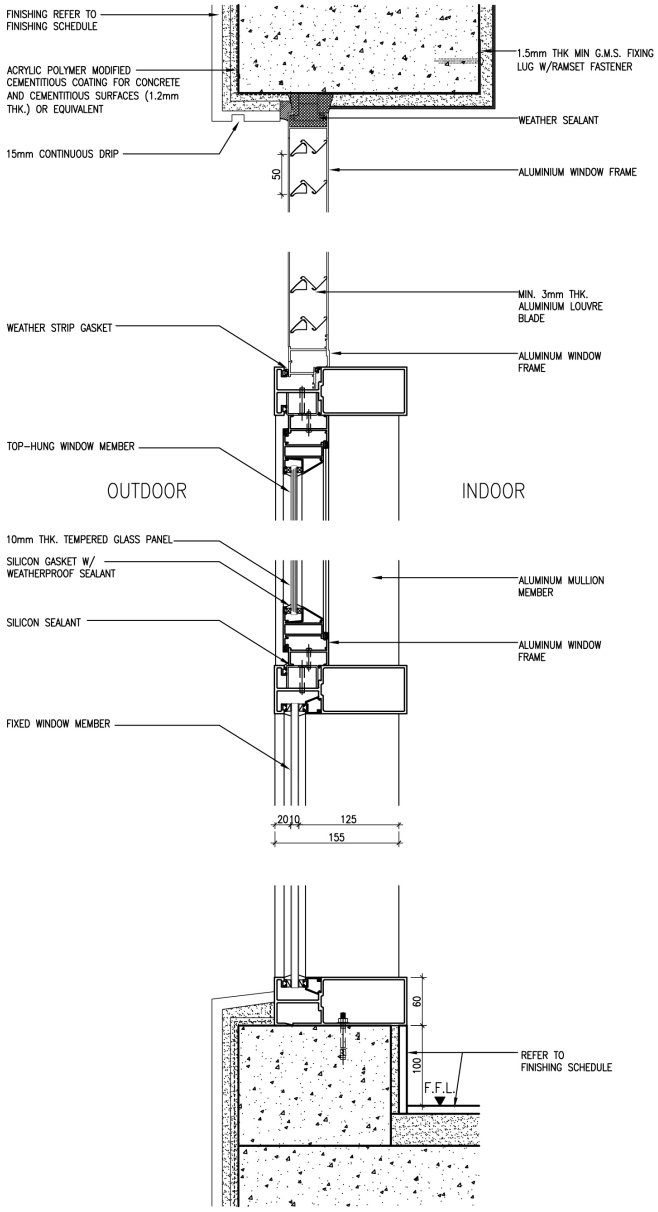
ELEVATION						
WINDOW MARK	W6	W7	W8	W9	W10	
GLAZING	MIN. 10mm THK. CLEAR TEMPERED GLASS	MIN. 10mm THK. CLEAR TEMPERED GLASS	MIN. 10mm THK. CLEAR TEMPERED GLASS	MIN. 10mm THK. CLEAR TEMPERED GLASS	MIN. 10mm THK. CLEAR TEMPERED GLASS	
LOCATION	CLASSROOM AT 1/F & 2/F. STAFF ROOM AT 1/F	SOCIAL WORKER'S ROOM AT 1/F & SPEECH THERAPY ROOM AT 2/F	SOCIAL WORKER'S ROOM AT 1/F	MULTI-PURPOSE AREA 1/F & 2/F	CORRIDOR 1/F & 2/F	
REMARKS	1. ALL WINDOW SHALL ACCOMPANIED WITH IRONMONGERY 2. ALL SURFACES EXPOSED TO VIEW SHALL BE IN PVDF COATING IN STANDARD RAL COLOR 3. WINDOWS OPENING CONTROL DEVICES SHOULD BE PROVIDED. 4. WEATHER PROOF ALUMINUM LOUVRE SHOULD BE PROVIDED.	1. ALL WINDOW SHALL ACCOMPANIED WITH IRONMONGERY 2. ALL SURFACES EXPOSED TO VIEW SHALL BE IN PVDF COATING IN STANDARD RAL COLOR 3. WINDOWS OPENING CONTROL DEVICES SHOULD BE PROVIDED. 4. WEATHER PROOF ALUMINUM LOUVRE SHOULD BE PROVIDED.	1. ALL WINDOW SHALL ACCOMPANIED WITH IRONMONGERY 2. ALL SURFACES EXPOSED TO VIEW SHALL BE IN PVDF COATING IN STANDARD RAL COLOR 3. WINDOWS OPENING CONTROL DEVICES SHOULD BE PROVIDED. 4. WEATHER PROOF ALUMINUM LOUVRE SHOULD BE PROVIDED.	1. ALL WINDOW SHALL ACCOMPANIED WITH IRONMONGERY 2. ALL SURFACES EXPOSED TO VIEW SHALL BE IN PVDF COATING IN STANDARD RAL COLOR 3. WINDOWS OPENING CONTROL DEVICES SHOULD BE PROVIDED. 4. WEATHER PROOF ALUMINUM LOUVRE SHOULD BE PROVIDED.	1. ALL WINDOW SHALL ACCOMPANIED WITH IRONMONGERY 2. ALL SURFACES EXPOSED TO VIEW SHALL BE IN PVDF COATING IN STANDARD RAL COLOR 3. WINDOWS OPENING CONTROL DEVICES SHOULD BE PROVIDED. 4. WEATHER PROOF ALUMINUM LOUVRE SHOULD BE PROVIDED.	

ELEVATION						
WINDOW MARK	W11	W12	W13	W14		
GLAZING	MIN. 10mm THK. -/60/60 FRR GLASS	MIN. 10mm THK. CLEAR TEMPERED GLASS	MIN. 10mm THK. CLEAR TEMPERED GLASS	MIN. 10mm THK. CLEAR TEMPERED GLASS		
LOCATION	STAIRCASE ST-2	STAFF ROOM (II) AT 1/F & CLASSROOM 4 AT 2/F	CORRIDOR AT 1/F & 2/F	BOY'S AND GRL'S TOILET AT G/F		
REMARKS	1. ALL WINDOW SHALL ACCOMPANIED WITH IRONMONGERY 2. ALL SURFACES EXPOSED TO VIEW SHALL BE IN PVDF COATING IN STANDARD RAL COLOR 3. (-/60/60) FRR FIXED LIGHT (INCLUDING FRAME AND FIXING)	1. ALL WINDOW SHALL ACCOMPANIED WITH IRONMONGERY 2. ALL SURFACES EXPOSED TO VIEW SHALL BE IN PVDF COATING IN STANDARD RAL COLOR	1. ALL WINDOW SHALL ACCOMPANIED WITH IRONMONGERY 2. ALL SURFACES EXPOSED TO VIEW SHALL BE IN PVDF COATING IN STANDARD RAL COLOR 3. WEATHER PROOF ALUMINUM LOUVRE SHOULD BE PROVIDED.	1. ALL WINDOW SHALL ACCOMPANIED WITH IRONMONGERY 2. ALL SURFACES EXPOSED TO VIEW SHALL BE IN PVDF COATING IN STANDARD RAL COLOR 3. WEATHER PROOF ALUMINUM LOUVRE SHOULD BE PROVIDED.		

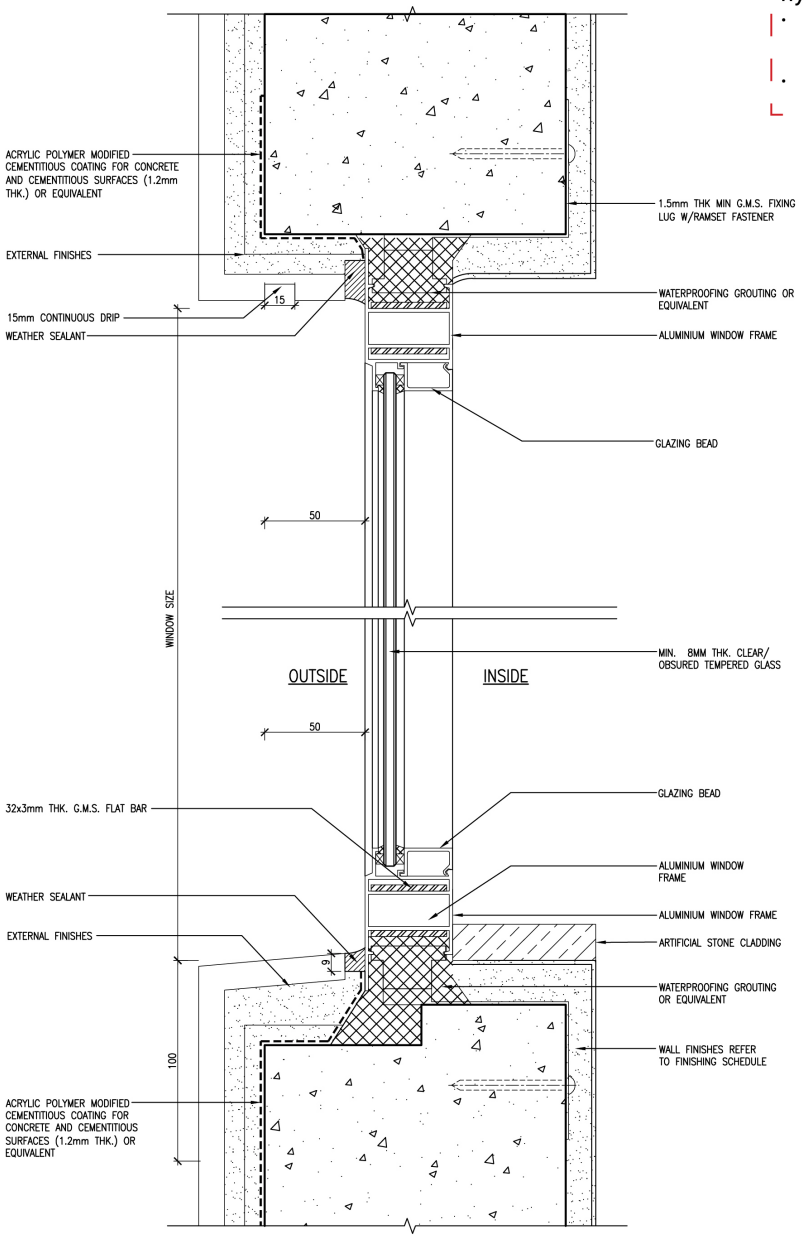
ELEVATION						
WINDOW MARK	W15	W16	W17	W18	W19	
GLAZING	MIN. 10mm THK. CLEAR TEMPERED GLASS	MIN. 10mm THK. CLEAR TEMPERED GLASS	MIN. 12mm THK. CLEAR TEMPERED GLASS FOR DOORS	MIN. 10mm THK. CLEAR TEMPERED GLASS FOR WINDOWS MIN. 12mm THK. CLEAR TEMPERED GLASS FOR DOOR	MIN. 10mm THK. CLEAR TEMPERED GLASS	
LOCATION	CLASSROOM AT G/F	STAIRCASE ST-1	LIFT LOBBY AT ROOF	MAIN ENTRANCE	CLASSROOM 1 AT G/F	
REMARKS	1. ALL WINDOW SHALL ACCOMPANIED WITH IRONMONGERY 2. ALL SURFACES EXPOSED TO VIEW SHALL BE IN PVDF COATING IN STANDARD RAL COLOR 3. WEATHER PROOF ALUMINUM LOUVRE SHOULD BE PROVIDED.	1. ALL WINDOW SHALL ACCOMPANIED WITH IRONMONGERY 2. ALL SURFACES EXPOSED TO VIEW SHALL BE IN PVDF COATING IN STANDARD RAL COLOR	1. ALL WINDOW SHALL ACCOMPANIED WITH IRONMONGERY ; 2. ALL SURFACES EXPOSED TO VIEW SHALL BE IN PVDF COATING IN STANDARD RAL COLOR; 3. WEATHER PROOF ALUMINUM LOUVRE SHOULD BE PROVIDED; 4. MASTER KEY SYSTEM AND KEY ALIKE SYSTEM INCLUDED; 5. DOOR STOP TO BE PROVIDED; 6. SELF-CLOSING DOOR.	1. ALL WINDOW SHALL ACCOMPANIED WITH IRONMONGERY ; 2. ALL SURFACES EXPOSED TO VIEW SHALL BE IN PVDF COATING IN STANDARD RAL COLOR; 3. WEATHER PROOF ALUMINUM LOUVRE SHOULD BE PROVIDED; 4. MASTER KEY SYSTEM AND KEY ALIKE SYSTEM INCLUDED; 5. DOOR STOP TO BE PROVIDED; 6. SELF-CLOSING DOOR.	1. ALL WINDOW SHALL ACCOMPANIED WITH IRONMONGERY ; 2. ALL SURFACES EXPOSED TO VIEW SHALL BE IN PVDF COATING IN STANDARD RAL COLOR; 3. WEATHER PROOF ALUMINUM LOUVRE SHOULD BE PROVIDED; 4. MASTER KEY SYSTEM AND KEY ALIKE SYSTEM INCLUDED; 5. DOOR STOP TO BE PROVIDED; 6. SELF-CLOSING DOOR.	

windows detail

teamwork



1 / - TYPICAL WINDOWS WALL SECTION
SCALE 1:5



4 / - TYPICAL ALUMINUM WINDOW SECTION (FIXED)
SCALE 1:2

My contribution:

- created elevations of all windows, louvres and access panels in this project on the windows schedule; description and specifiication were completed by an experienced architect
- created typical windows detail section; descriptions and designs were checked by architects

My contribution:

- created site analysis, PRE stage & SD stage drawing sets
- created renderings and presentation packages
- participated in preparing submission packages
- participated in community engadgement programs, seminars, workshops and exhibition about renewable technology

3.1 PERTH AIRPORT HYDROGEN STATION



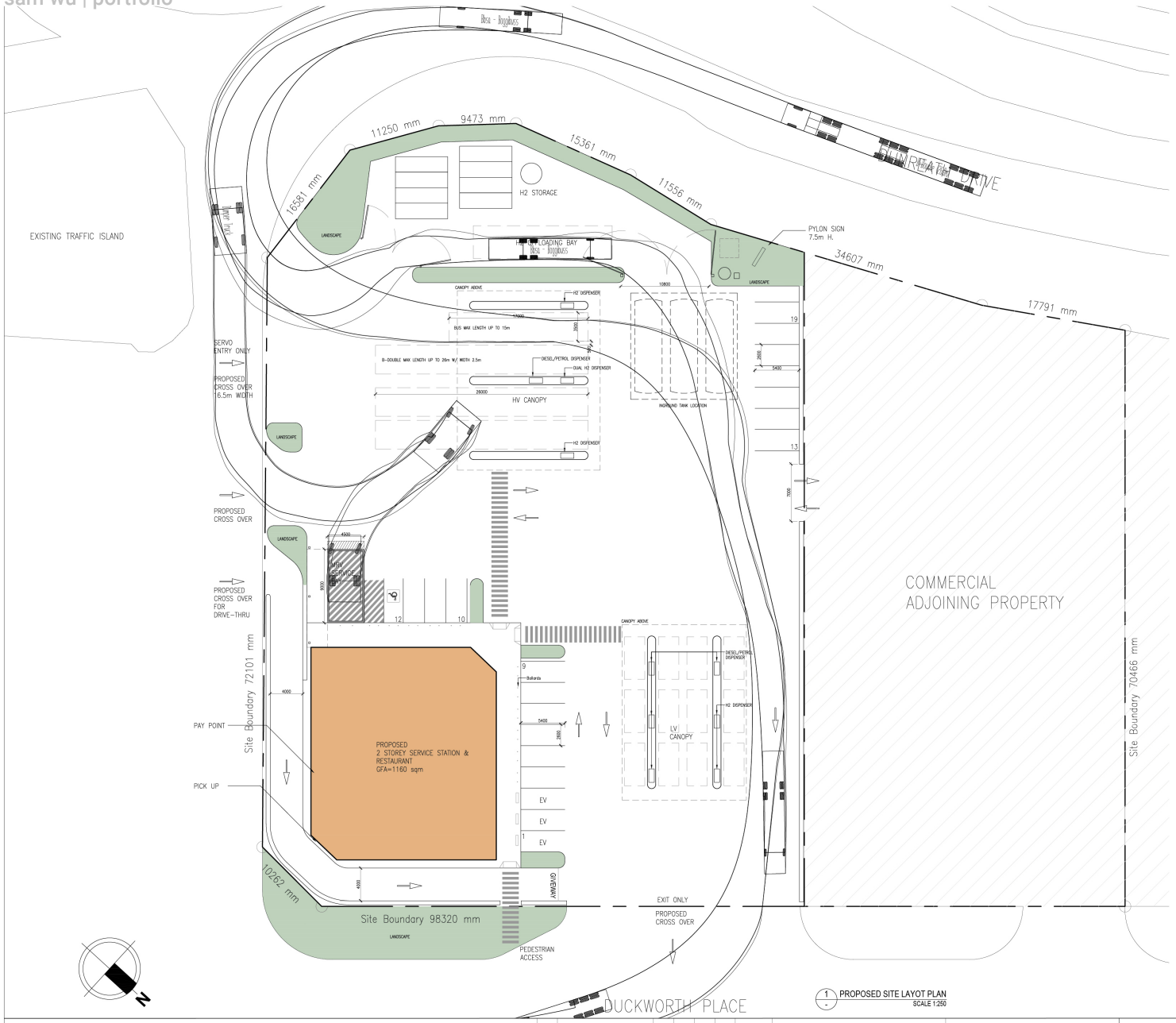
03 RENEWABLE ENERGY PROJECT 22-24

multiple sites in WA & NSW | Working Drawings/ Conceptual Design | Under review
Client: Mt Gibson Iron Limited, Shire of Dardanup, KBR Singapore, Perth Airport

Participated in the design and technical development of hydrogen refuelling stations across Australia, focusing on site planning, equipment layout, safety zoning, and integration of renewable hydrogen supply with transport and distribution infrastructure. Various essential components in submission package include site layouts, equipment layouts, swept-path analysis, circulation plan for vehicles and pedestrian and conceptual renderings.







1 PROPOSED SITE LAYOT PLAN
SCALE 1:250

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4. STANDARD PARKING BAYS PROVIDED AT 5.4m x 2.6m
5. DISABLED PARKING BAYS PROVIDED AT 5.4m x 2.4m W/ 5.4m x 2.4m SHARED ZONE ADJACENT.
6. PROJECT DEVELOPMENT TO COMPLY WITH LOCAL, NATIONAL, AND INTERNATIONAL STANDARDS AND REGULATIONS.
7. STATION DESIGNED TO HOST B-DOUBLE TRUCK UP TO 26M LONG. TURNING RADII 15M (AUSTROADS).
8. DESIGN TO SATISFY AUSTROADS DESIGN VEHICLES AND TURNING PATH TEMPLATES GUIDE.
9. HYDROGEN EXPERIENCE CENTRE TO COMPLY WITH AUSTRALIA BUILDING CODE.
10. HYDROGEN REFUELLING STATION TO COMPLY WITH DMIRS REGULATIONS.
11. HYDROGEN REFUELLING STATION TO SATISFY AIRPORT WEST'S DESIGN GUIDELINES.

SITE CRITERIA

LOT 40, DUNREATH DRIVE, PERTH AIRPORT, WA, 6105
SITE AREA: 5,870 m2 LOCAL AUTHORITY: PERTH AIRPORT ZONING:
STORE & H2 EXPERIENCE CENTRE: 580m2 H2 STORAGE & EQUIPMENT: 536 m2 BULK H2 STORAGE: 13.2 Tons PETROL & DIESEL IN-GROUND STORAGE: 239 m2 H2 DISPENSERS UNDER LV CANOPY: 4 DUAL AT 700 bar (8 CARS AT THE SAME TIME) H2 DISPENSERS UNDER HV CANOPY: A – 1 DUAL, 1 HOSE AT 350 bar FOR 1 BUS ; 1 HOSE AT 700 bar FOR 1 TRUCK B – 1 DUAL, BOTH HOSES AT 700 BAR (2 TRUCKS) DIESEL/ PETROL DISPENSERS UNDER LV CANOPY: 4 DUAL DISPENSERS (8 CARS) DIESEL/ PETROL DISPENSERS UNDER HV CANOPY: 1 DUAL DISPENSER (2 CARS)
CAR PARK 17 CAR PARKS PROVIDED 1 MRV SERVICE BAY 1 HYDROGEN TRUCK SERVICE BAY

OPTION THREE
LAST UPDATED: 29 JUNE 2022

0m 5m 10m 20m 40m

REV	DESCRIPTION	ORIG	DRWN	CKD	APPD	DATE
A	ISSUED FOR REVISION	OP	OP	Dy.C	Dy.C	10/06/22

CHIEF ENGINEER: DAVID CAVANAGH
ARCHITECT: ANDREW MARSH
PROJECT ENGINEER: BING ZHANG
PAPER SIZE: A1
SCALE: 1:250

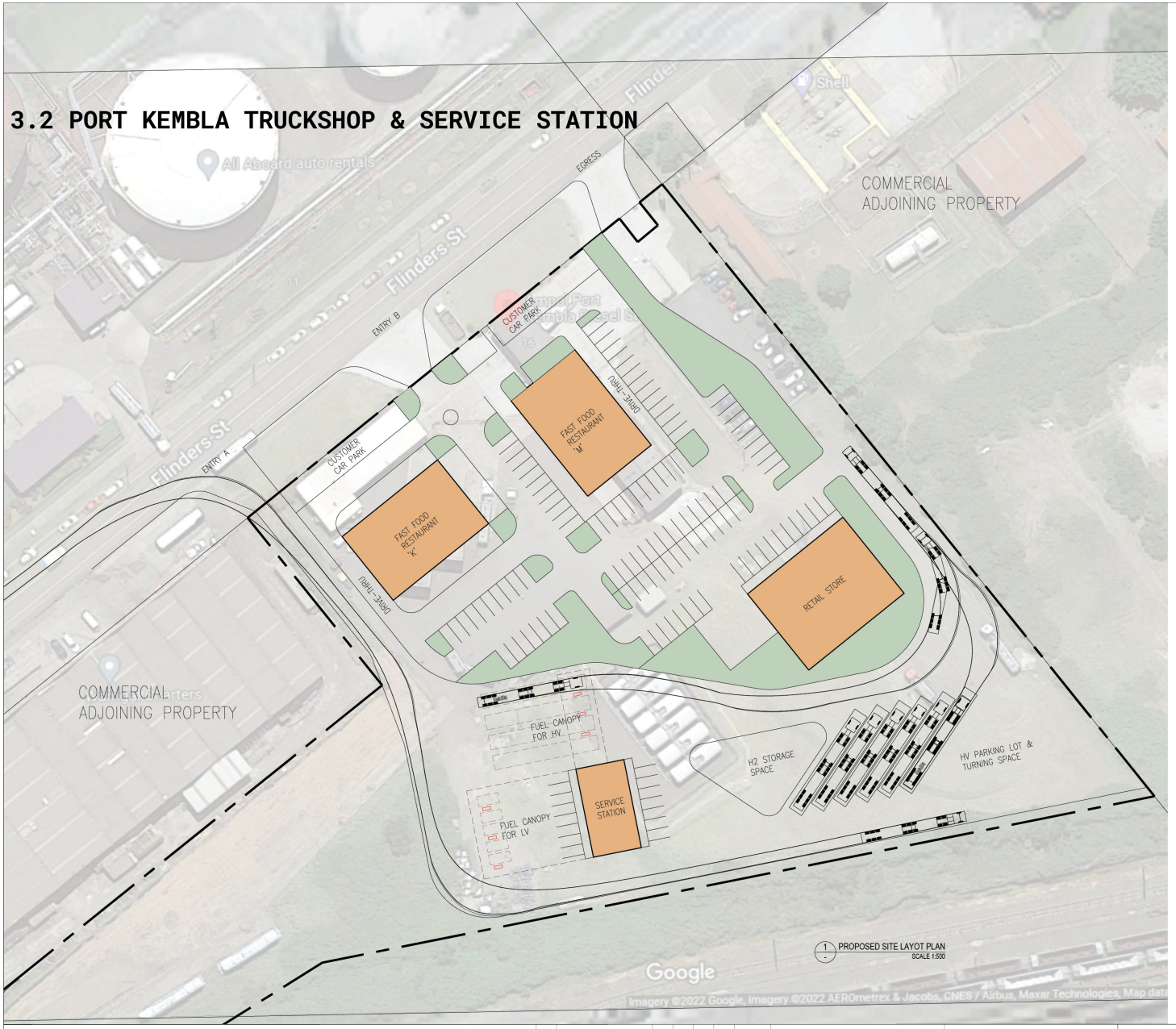
integrated energy

Hydrogen West

PERTH AIRPORT HYDROGEN REFUELLING STATION
SITE PLAN – PHASE 3 – Q4 2024

CLIENT:
ELECTRONIC FILE:
SKP | SH. OF | REV. A

3.2 PORT KEMBLA TRUCKSHOP & SERVICE STATION



1 PROPOSED SITE LAYOT PLAN
SCALE 1:500

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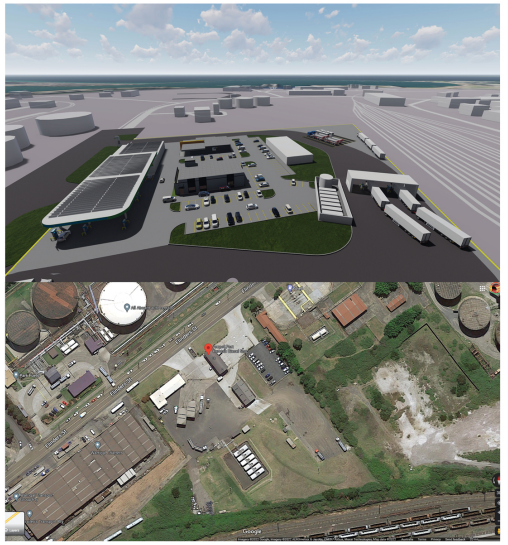
6. DESIGN TO SATISFY AUSTROADS DESIGN VEHICLES AND TURNING PATH TEMPLATES GUIDE.
7. HYDROGEN EXPERIENCE CENTRE TO COMPLY WITH AUSTRALIA BUILDING CODE.
8. HYDROGEN REFUELLING STATION TO COMPLY WITH DMIRS REGULATIONS.
9. HYDROGEN REFUELLING STATION TO SATISFY AIRPORT WEST'S DESIGN GUIDELINES.

SITE CRITERIA

LOT 21 DP 777856, FLINDERS STREET PORT KEMBLA NSW 2505
SITE AREA: 23,000 m2 (APPROX.) LOCAL AUTHORITY: WOLLONGONG CITY COUNCIL ZONING:



N

LAST UPDATED: 1 AUGUST 2022

0m 10m 20m 40m 80m
SCALE BAR 1:500

REV	DESCRIPTION	ORIG	DRWN	CKD	APPD	DATE
						10/06/22

integrated energy

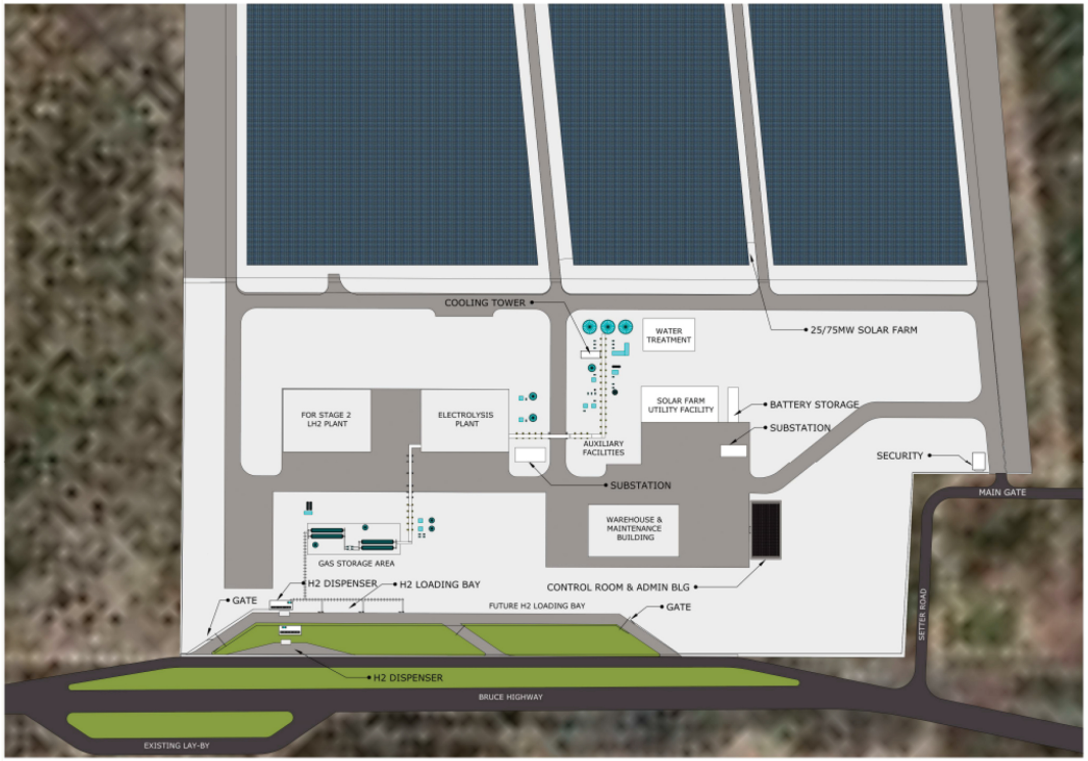
PAPER SIZE: A1
SCALE: 1:500

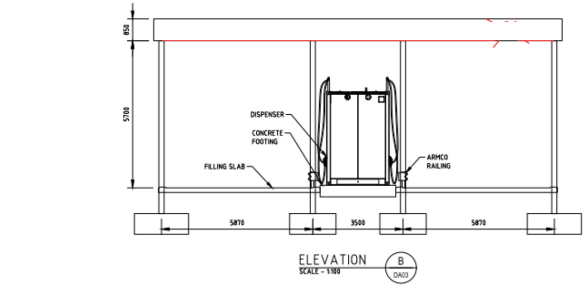
FLINDERS ST
PORT KEMBLA, NEW SOUTH WALES

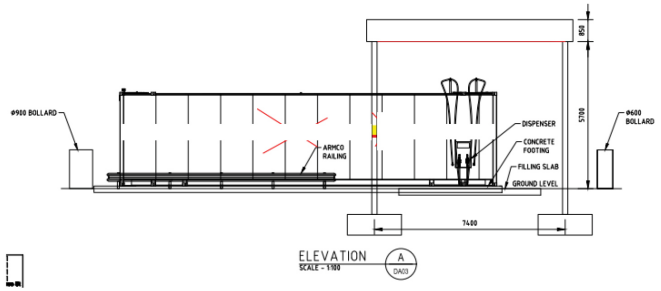
CLIENT:
ELECTRONIC FILE:
SKP | SH. OF | REV. 0

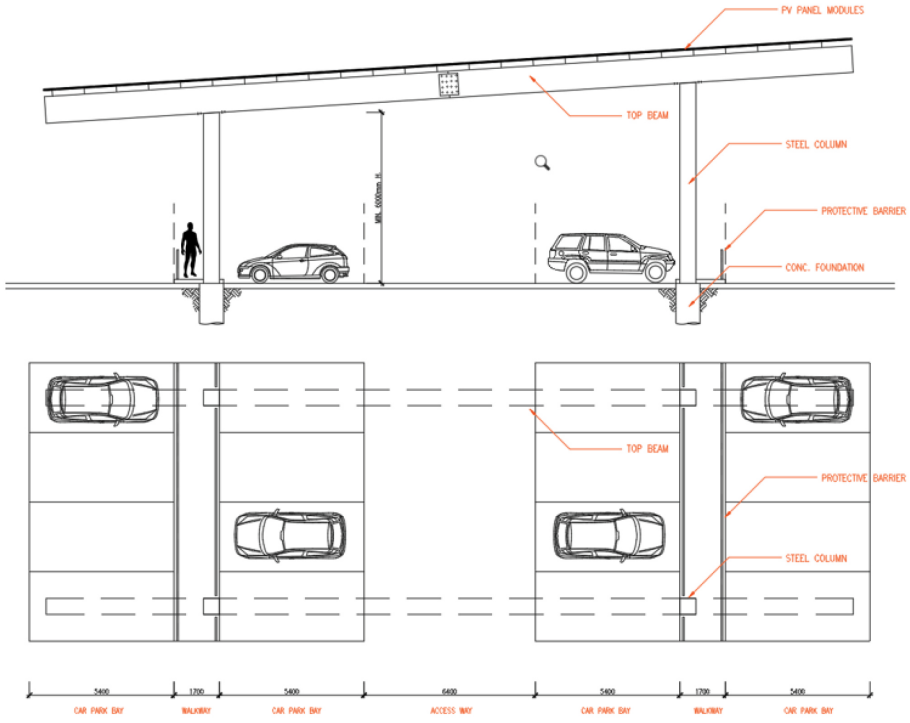
3.3 SOLAR FARM & H2 FACILITY IN QLD



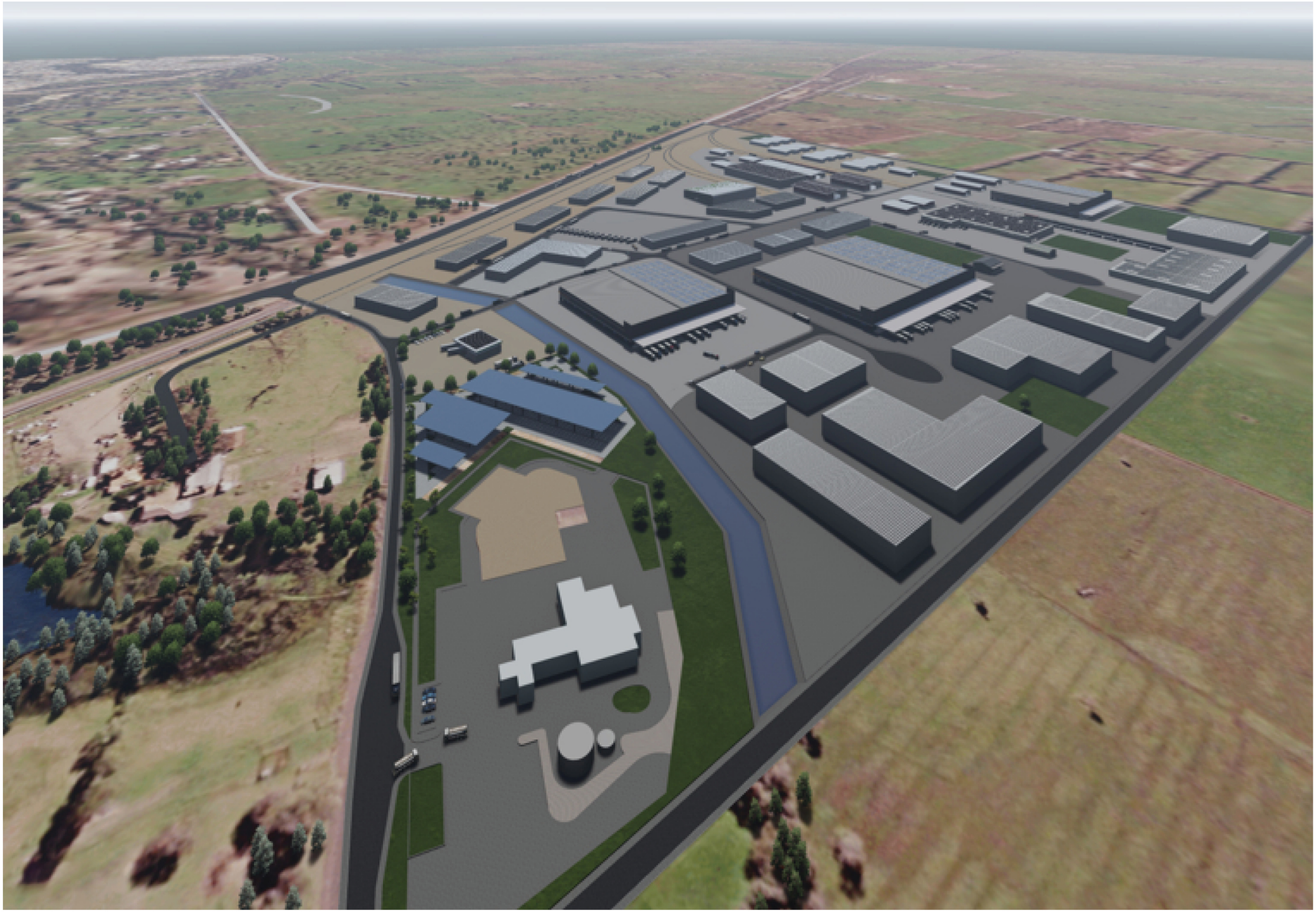








3.4 HYDROGEN STATION AND INTERMODAL INDUSTRIAL PRECINCT IN PERTH



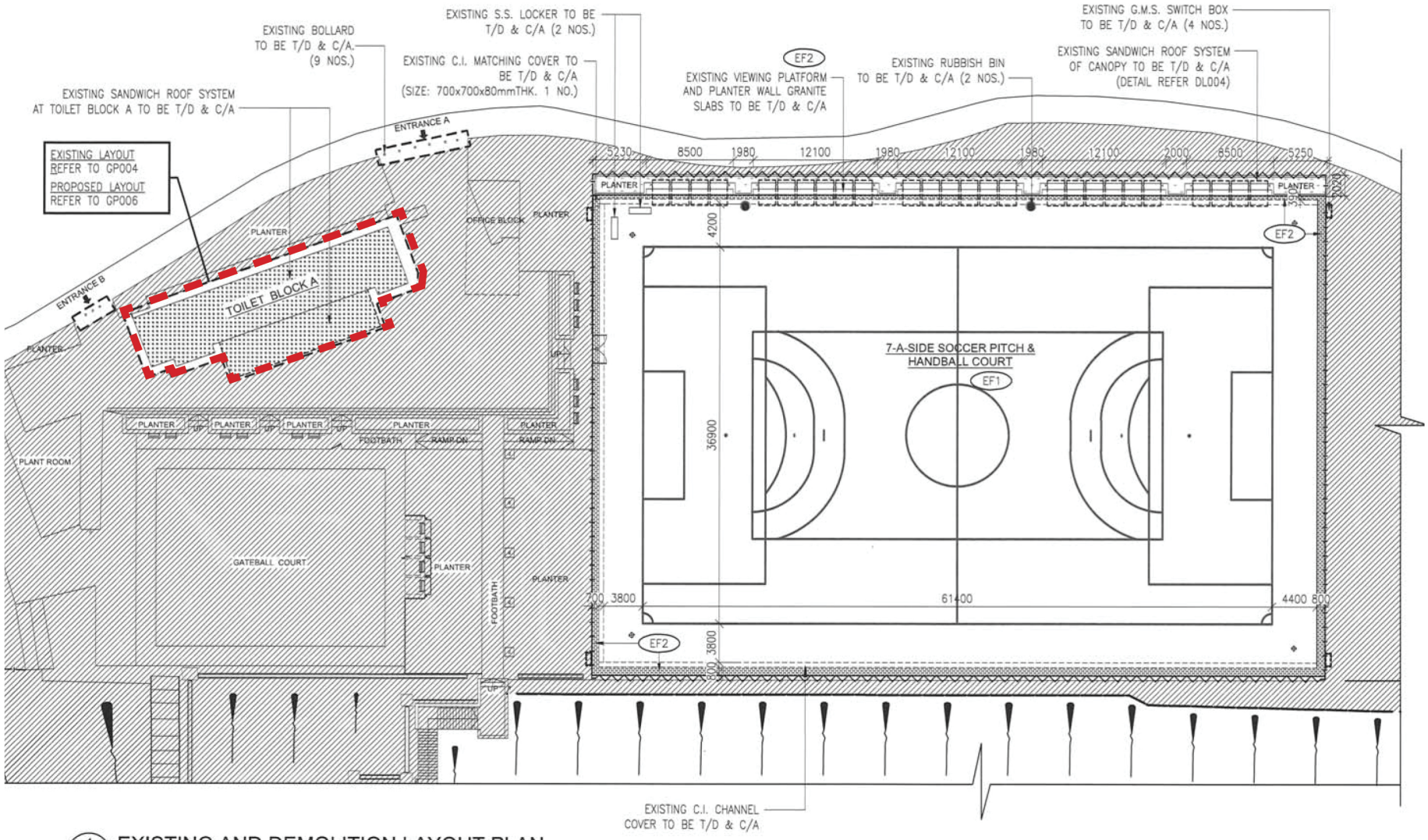
My contribution:

- created existing and emoltion plans for the park and the toilet block
- created general building plans of the toilet block; section/ elevation symbols were put by project architect for division of tasks

04 PUBLIC TOILET RENOVATION

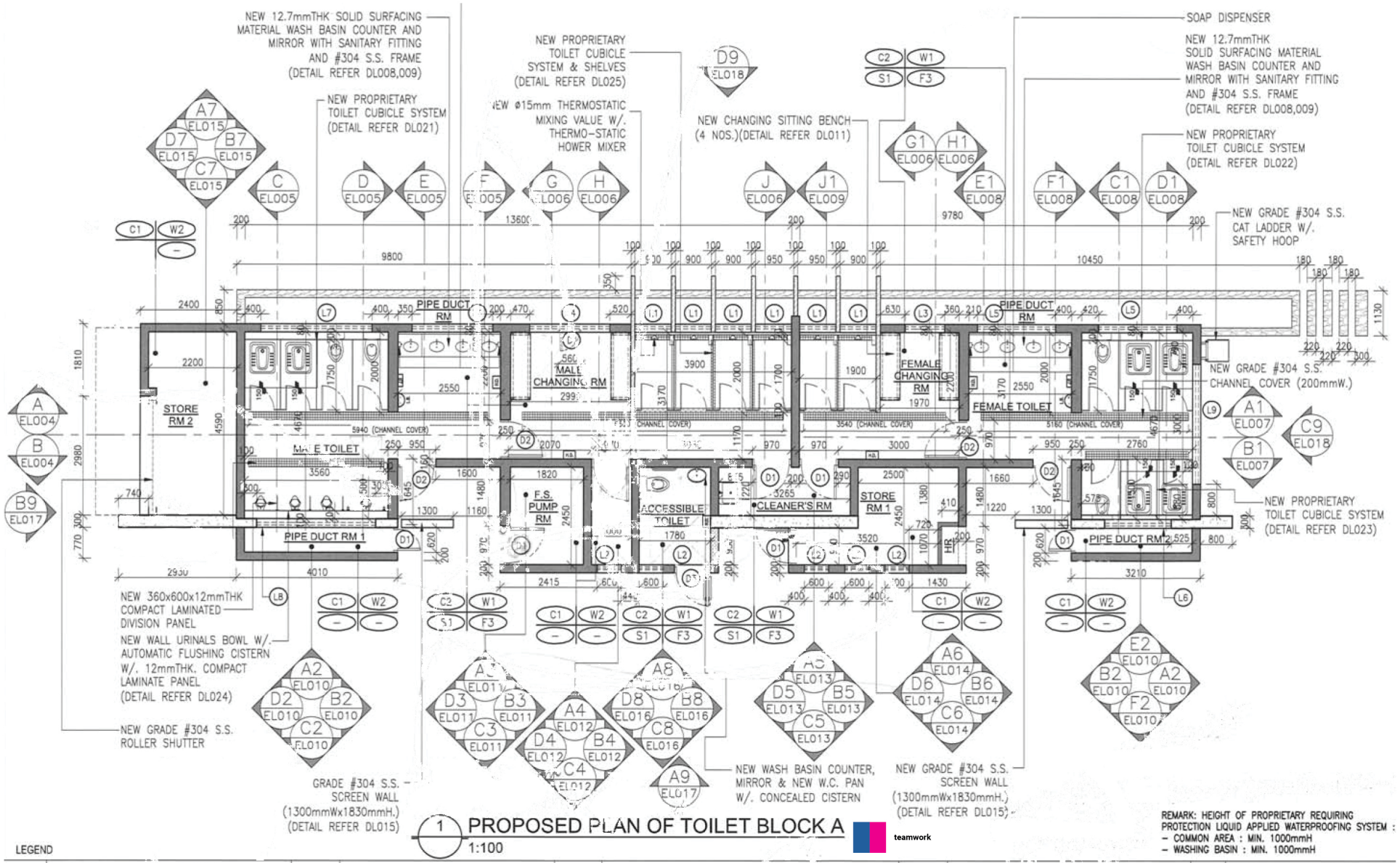
Tuen Mun, Hong Kong | Working Drawings | 2019 - 2022 | Completed in 2023
Client: Architectural Service Department, Hong Kong

An renovation project for a public park in Tuen Mun, Hong Kong. The project required the latest design guidelines on universal design to be applied to toilets on top of the current barrier-free access design guidelines.



1 EXISTING AND DEMOLITION LAYOUT PLAN
1:400

solo



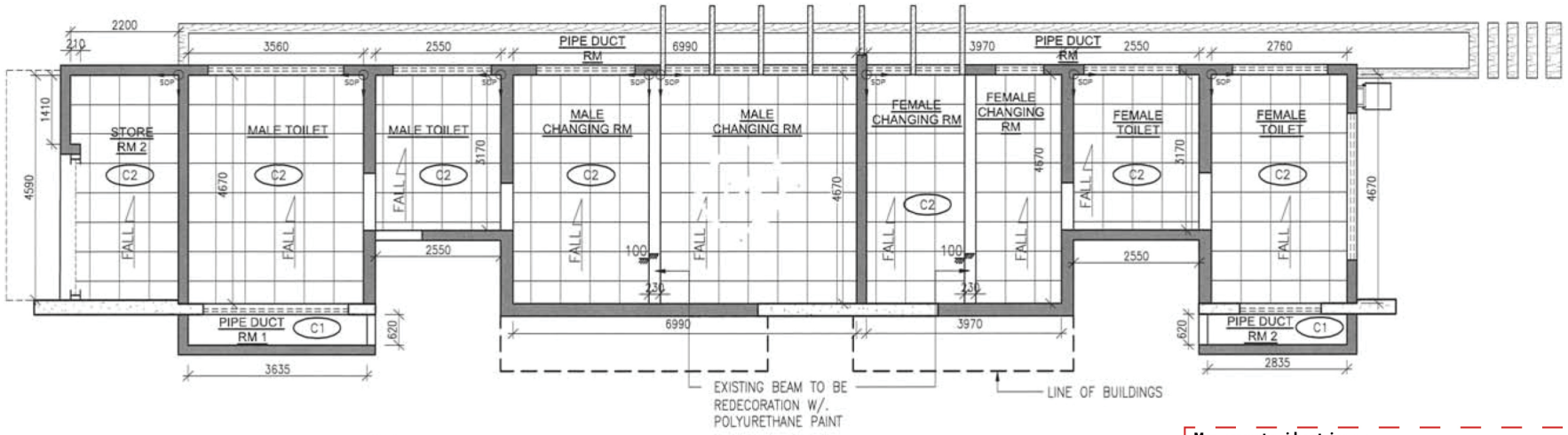
1 PROPOSED PLAN OF TOILET BLOCK A
1:100

REMARK: HEIGHT OF PROPRIETARY REQUIRING PROTECTION LIQUID APPLIED WATERPROOFING SYSTEM :
– COMMON AREA : MIN. 1000mmH
– WASHING BASIN : MIN. 1000mmH

LEGEND

F3	NEW 300X300mm CERAMIC FLOOR TILES (ANTI-SLIP) W/. 30mmTHK. PROPRIETARY WATERPROOFING PROTECTIVE SCREEDS (DETAIL REFER DL013)	C2	NEW 600X600mm PERFORATED ALUMINIUM LAY-IN CEILING TILE W/. SOUND ABSORBING MATT & G.M.S. SUSPENDED GRIP SYSTEM	EXISTING BRICK WALL TO BE RETAINED	NEW (200mmW.) GRADE #304 S.S. CHANNEL COVER W/. 25mmTHK. GRANITE SLAB (DETAIL REFER DL011)
W1	NEW 200x200mm CERAMIC WALL TILE W/. 20mmTHK. C/S (1:3) RENDERING (DETAIL REFER DL013)	S1	NEW 100mmH. CERAMIC SKIRTING (ANTI-SLIP) W/. 5mmTHK. C/S BEDDING	EXISTING R.C. WALL TO BE REDECORATION W/. PROPRIETARY FLUORINE RESIN COATING SYSTEM W/. TILE FILLER RETAINED (4380mmH.)	D1 NEW GRADE #304 S.S. DOOR (DETAIL REFER DL029)
W2	EXISTING WALL TO BE REDECORATION W/. POLYURETHANE PAINT	L	NEW GRADE #304 S.S LOUVRE AT H/L (DETAIL REFER DL014)	NEW 200mmTHK. BRICK WALL (2130mmH.)	D2 NEW GRADE #304 S.S. GATE DOOR (DETAIL REFER DL030)
C1	EXISTING CEILING TO BE REDECORATION W/. POLYURETHANE PAINT		EXISTING RANDOM RUBBLE GRANITE WALL TO BE RETAINED (1900mmH.)	NEW 25mmTHK. NATURAL GRANITE KERB IN HAMMER DRESSED FINISH FOR SHOWER AREA	D3 NEW GRADE #304 S.S ACCESSIBLE TOILET DOOR (DETAIL REFER DL031)
				EXISTING PARTATION WALL TO BE RETAINED (2530mmH.)	

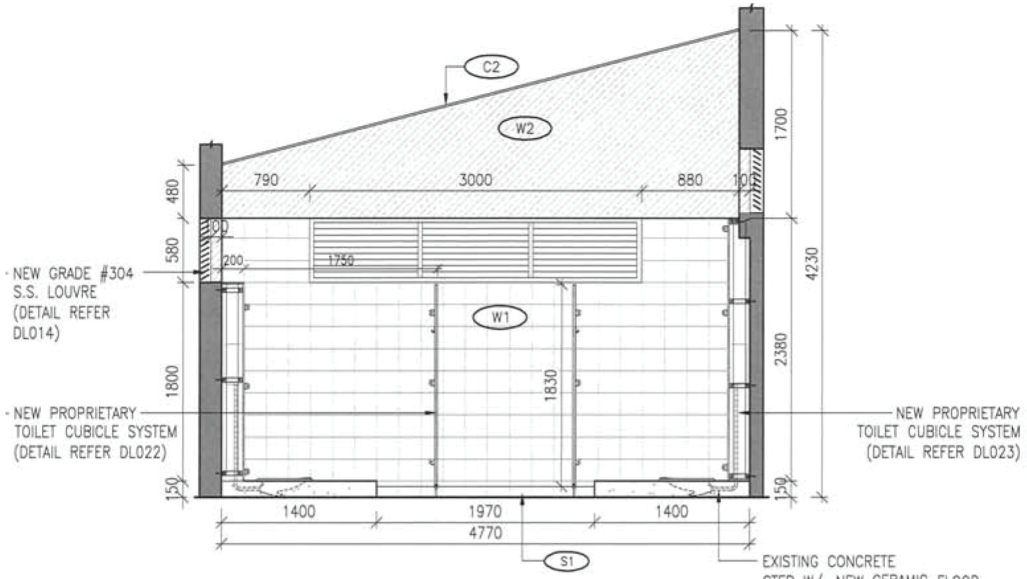
H.D.	NEW ELECTRIC HAND DRYER (S/F BY B.S.)(4 NOS.)
J.R.	NEW S.S. MULTI-ROLL TOILET TISSUE DISPENSER BOX
L.B.	NEW #304 S.S. WALL MOUNTED LITTER BIN. (DETAIL REFER DL012
	NEW SLOP SINK (DETAIL REFER DL008)
	NEW W.C. PAN & SQUATTING W.C PAN W/. CONCEALED CISTERN



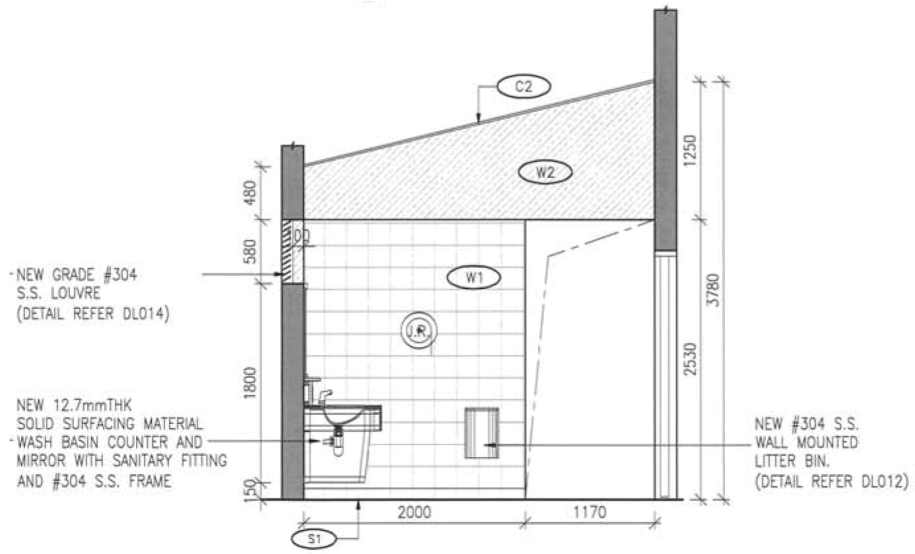
1 PROPOSED CEILING PLAN OF TOILET BLOCK A (PART A)
1:100

My contribution:

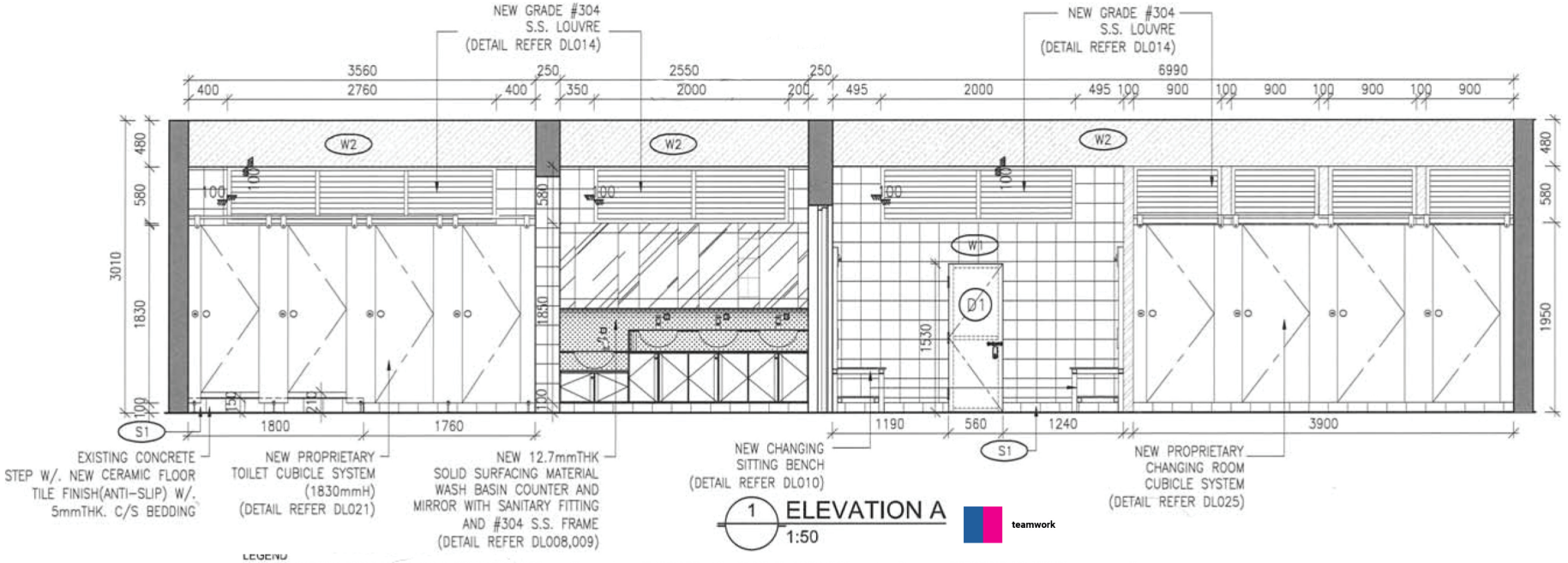
- created working area drawing, ceiling plans and internal elevations; description and material were checked by draftspersons and architect
- completed design of the standardised disabled toilet



2 ELEVATION D1
1:50



4 ELEVATION F1
1:50

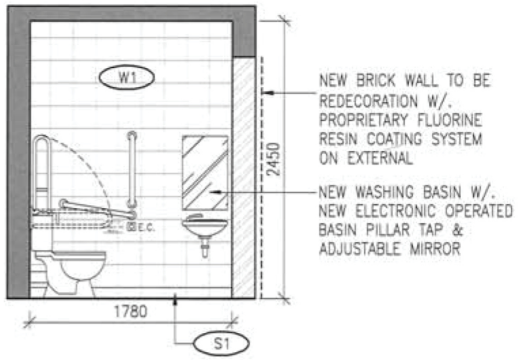


1 ELEVATION A
1:50

teamwork

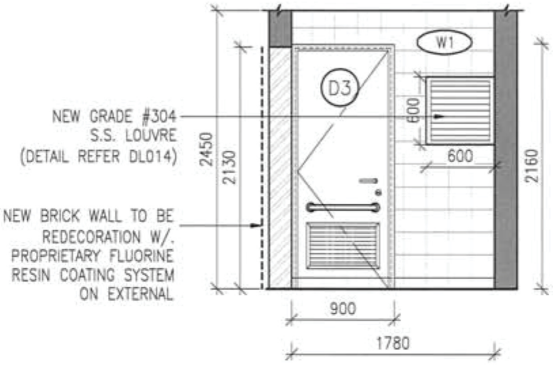
W1	NEW 200x200mm CERAMIC WALL TILE W/. 20mmTHK. C/S (1:3) RENDERING (DETAIL REFER DL013)	S1	NEW 100mmH. CERAMIC SKIRTING (ANTI-SLIP) W/. 5mmTHK. C/S BEDDING (DETAIL REFER DL013)	D2	NEW GRADE #304 S.S. GATE DOOR (DETAIL REFER DL030)
W2	EXISTING WALL TO BE REDECORATION W/. POLYURETHANE PAINT (DETAIL REFER DL013)	D1	NEW GRADE #304 S.S. DOOR (DETAIL REFER DL029)	H.D.	NEW ELECTRIC HAND DRYER (S/F BY B.S.)

REMARK: HEIGHT OF PROPRIETARY REQUIRING PROTECTION LIQUID APPLIED WATERPROOFING SYSTEM :
- COMMON AREA : MIN. 1000mmH
- WASHING BASIN : MIN. 1000mmH



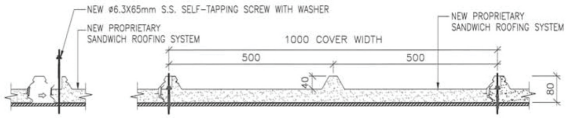
solo

1 ELEVATION A8 OF ACCESSIBLE TOILET
1:50

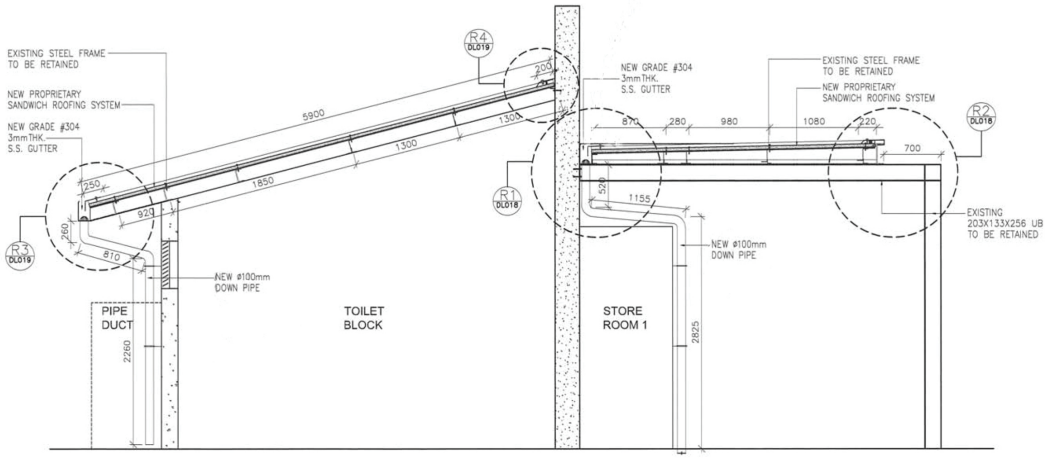


solo

3 ELEVATION C8 OF ACCESSIBLE TOILET
1:50

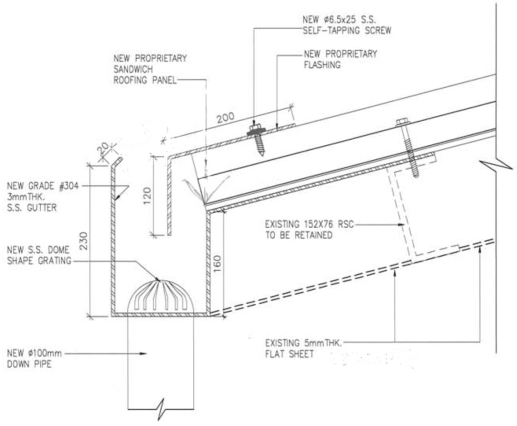


1 DETAIL OF PROPRIETARY SANDWICH ROOFING SYSTEM
SCALE 1:10



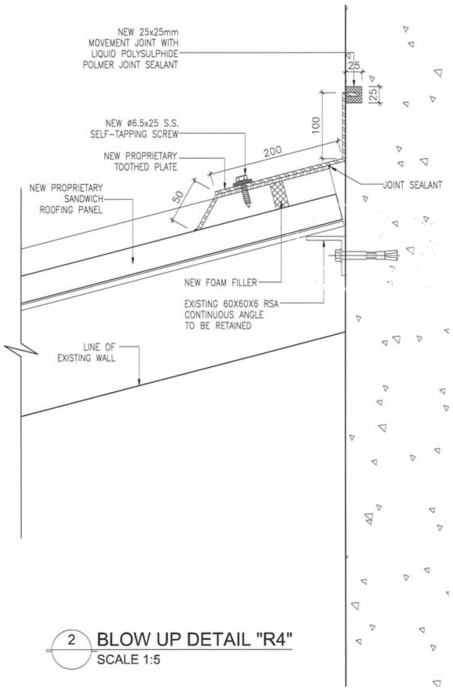
2 SECTION A OF PROPRIETARY SANDWICH ROOFING SYSTEM
SCALE 1:5

solo



1 BLOW UP DETAIL "R3"
SCALE 1:5

teamwork



2 BLOW UP DETAIL "R4"
SCALE 1:5

My contribution:

- created section drawing showing the new sandwich roofing system to the toilet block with gutter and rainwater drains
- detail design of connections were completed with assistance of experienced draftspersons

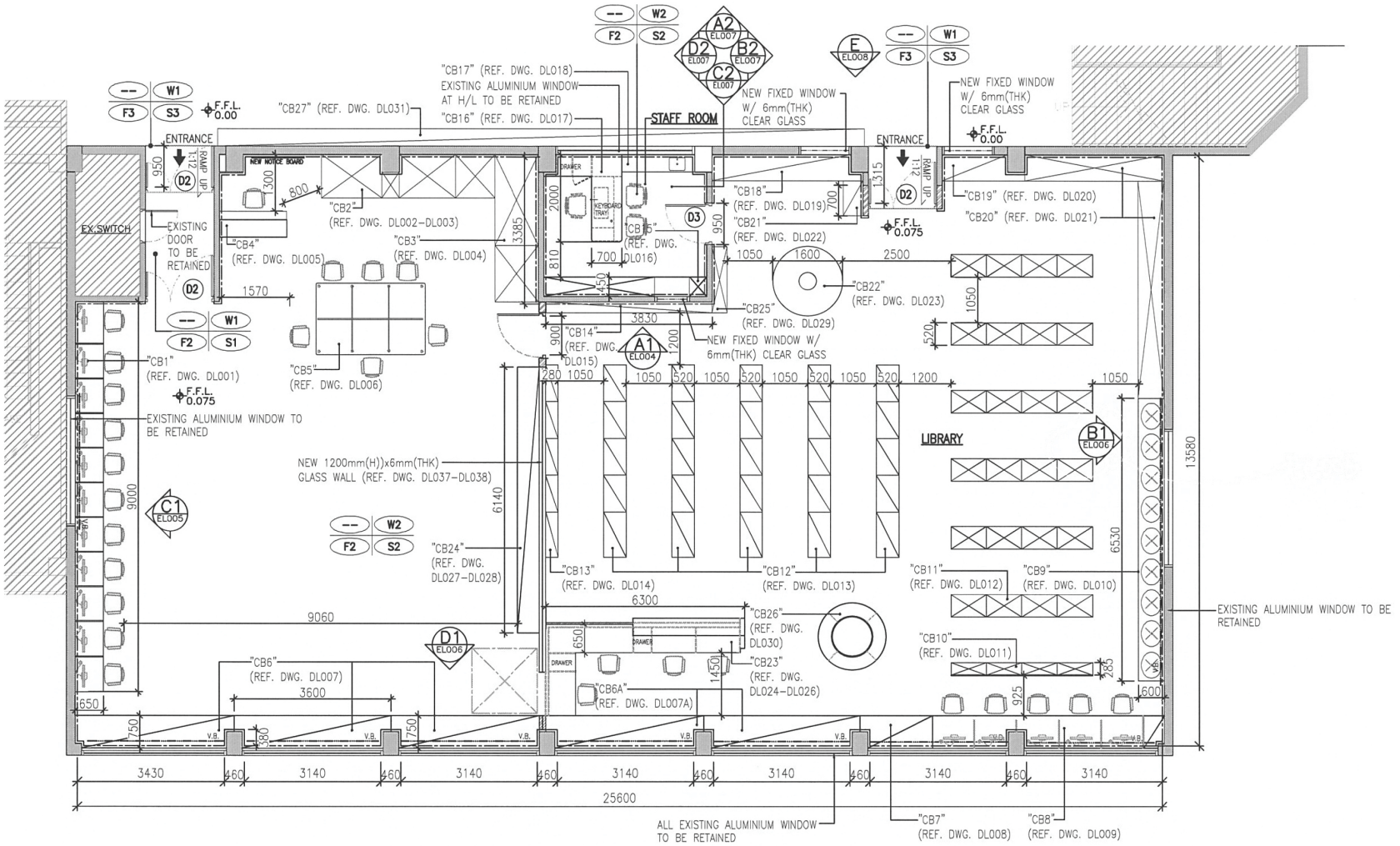
05 SCHOOL LIBRARY RENOVATION

Tuen Mun, Hong Kong | Working Drawings | 2019 - 2022 | Completed in 2023
Client: Architectural Service Department, Hong Kong

An annex building for a special school in Tuen Mun, Hong Kong, features six classrooms and additional learning spaces. Its internal zig-zag façade is designed to avoid conflicts with underground drainage reserve facilities, ensuring continuous accessibility and serviceability throughout the school's lifespan while maintaining functional and efficient spatial planning.

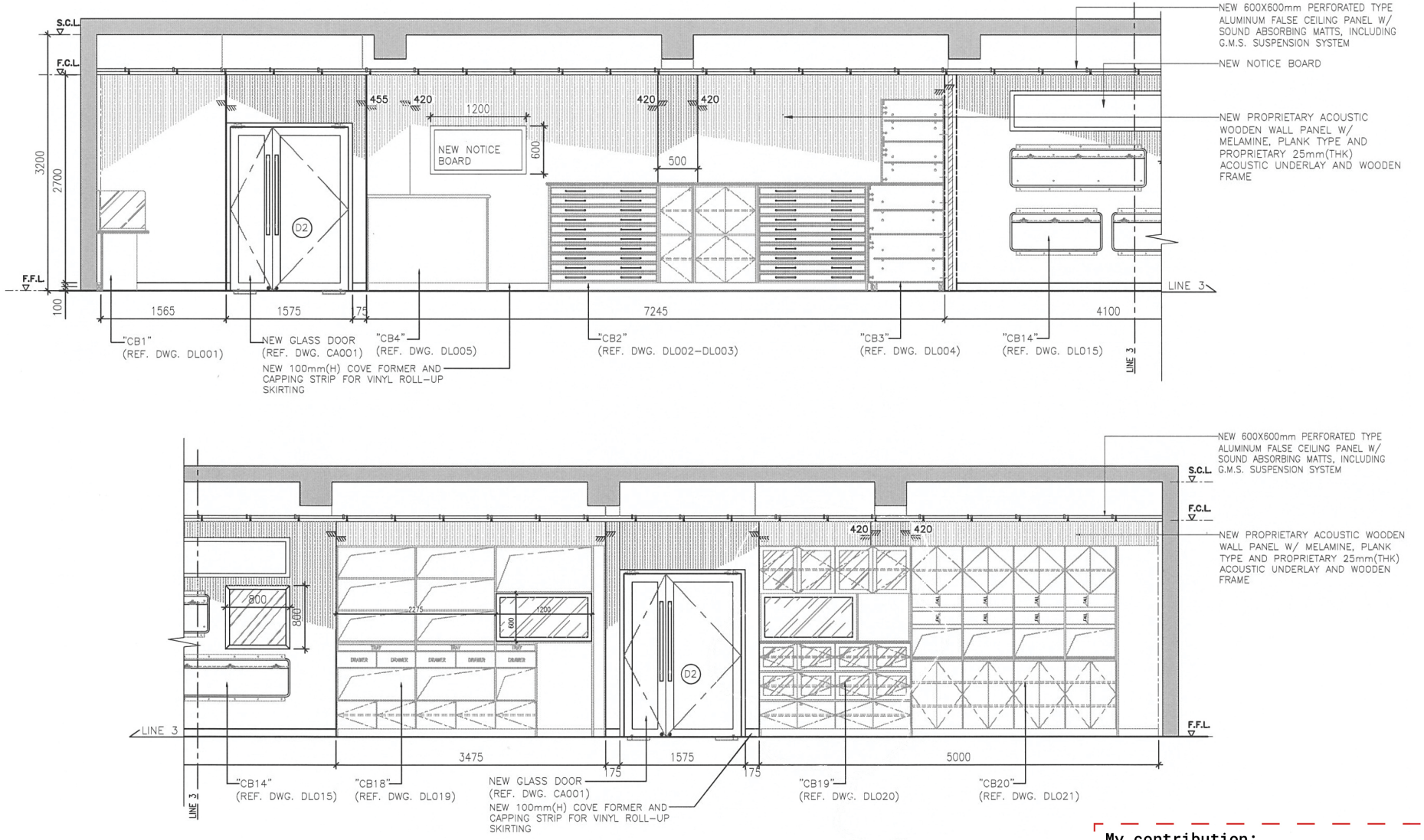
My contribution:

- created general floor plan and internal elevations of the library room
- Incorporated material, fixtures and furnitures selected by clients, to the working drawing set



PROPOSED LAYOUT PLAN AT 3/F LIBRARY ROOM
SCALE 1:100

solo

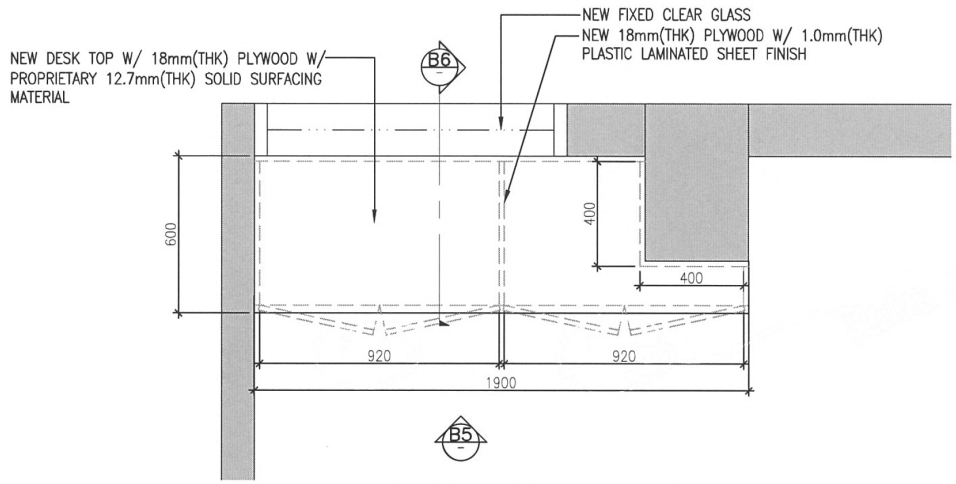


ELEVATION "A1" AT AT 3/F LIBRARY ROOM
SCALE 1:50

teamwork

My contribution:

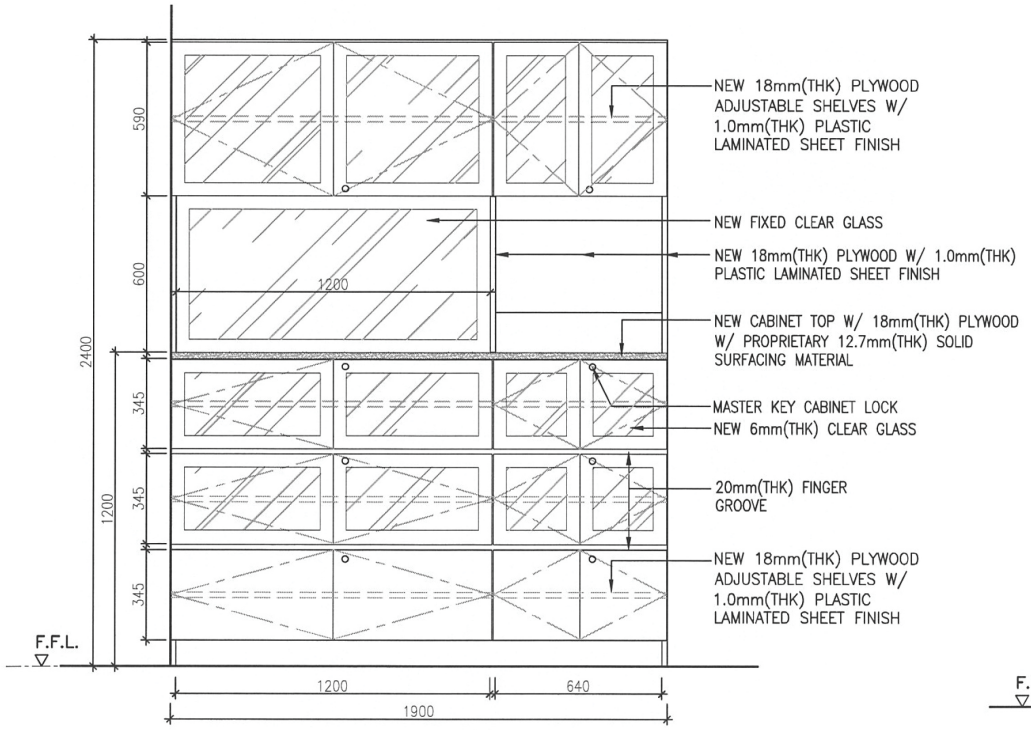
- created detailed elevations in 1:50 scale
- assisted in designing detail design of cabinets and shelves
- completed assembly drawings of fixtures in the library room



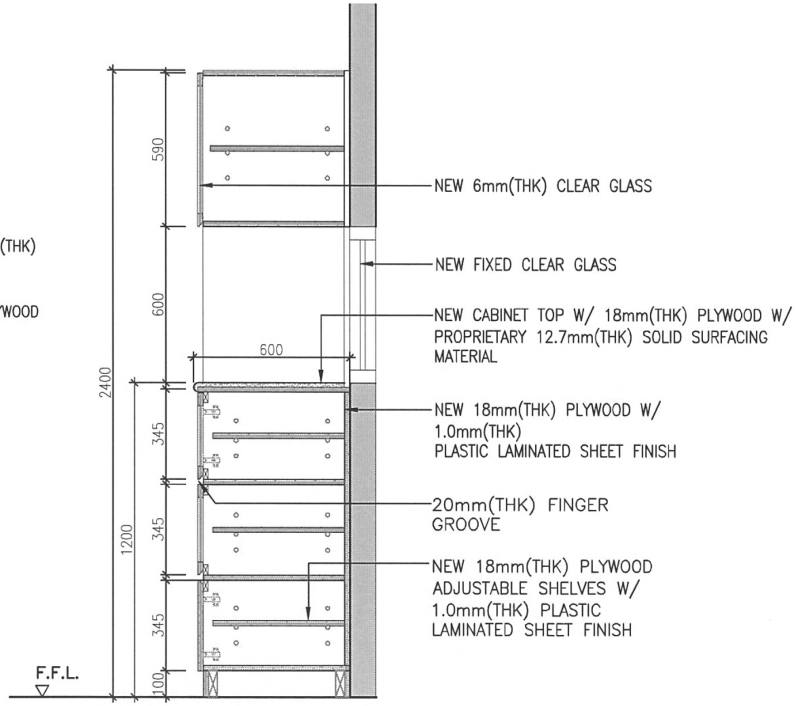
TYPICAL DETAILS OF SHELF "CB19"
SCALE 1:20

NOTES:

1. NEW CABINET CONSTRUCTION W/ 18mm(THK) PLYWOOD, OTHERWISE STATED.
2. EXTERNAL EXPOSED SURFACE OF RECEPTION COUNTER TO BE FINISH W/ 1.0mm(THK) LAMINATED PLASTIC SHEET AND INTERNAL SURFACE TO BE IN WHITE PLASTIC LAMINATED FINISH.
3. ALL EXPOSED PLYWOOD EDGING TO BE SEALED W/ 20x5mm(THK) SOFTWOOD LIPPING OTHERWISE STATED.
4. ALL SOFTWOOD LIPPING W/ STAIN & CELLULOSE LACQUER PAINT FINISH OR OTHERWISE STATED.
5. NEW CABINET TOP W/ PROPRIETARY 12.7mm(THK) SOLID SURFACING MATERIAL.



ELELVATION "B5"
SCALE 1:20



SECTOIN "B6"
SCALE 1:20

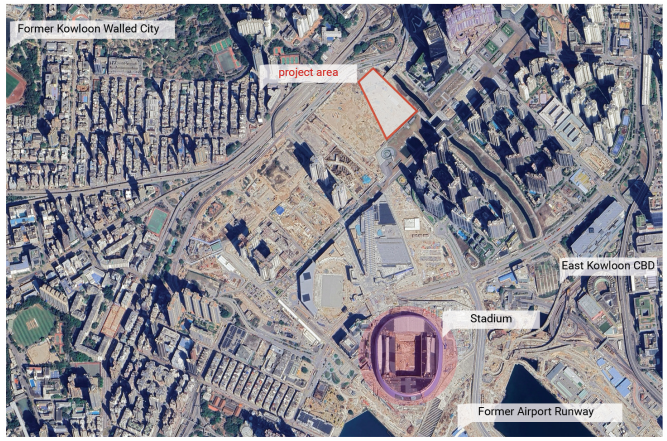
06

CLT VERTICAL FARM

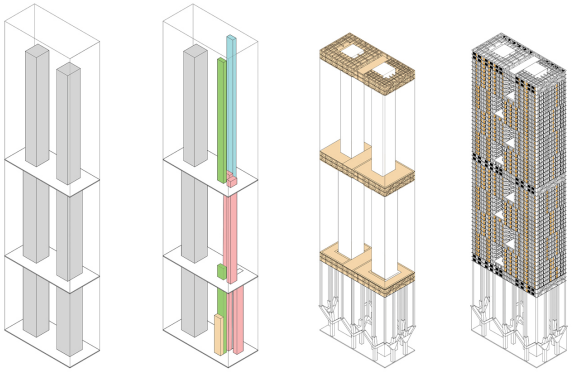
Kai Tak, Hong Kong | Competition | 2023 |

The CLT housing skyscraper project in Hong Kong's Kai Tak District addresses the housing crisis with temporary, affordable high-rise units. It enhances public space through rooftop gardens, fosters community via shared mid-air gardens, and integrates CLT-hybrid construction for sustainability. A vertical farm supplies local food, creating a resilient urban ecosystem.

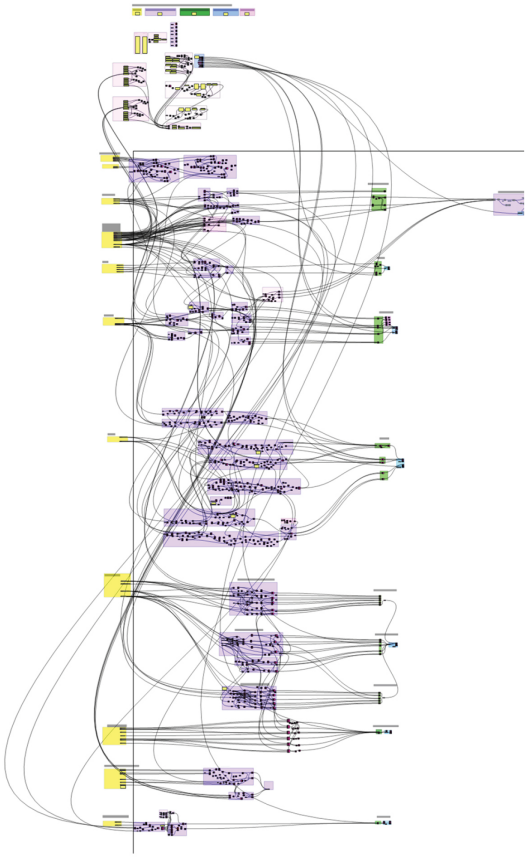




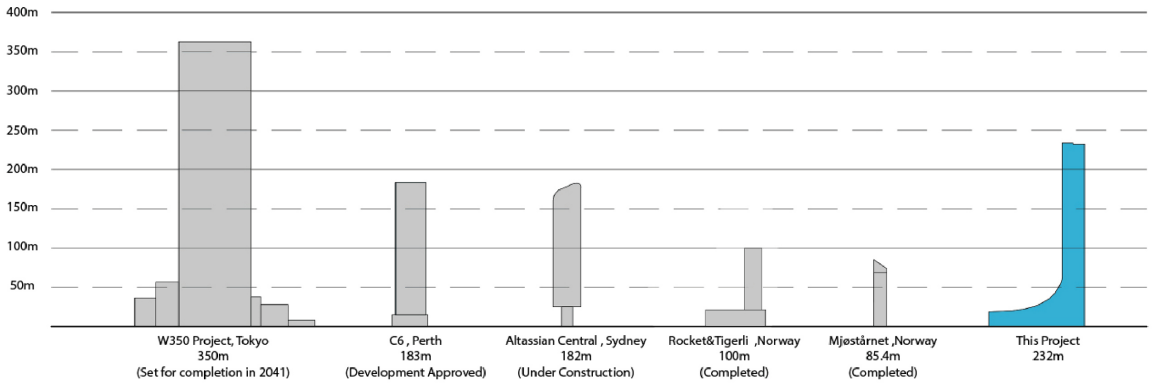
site context

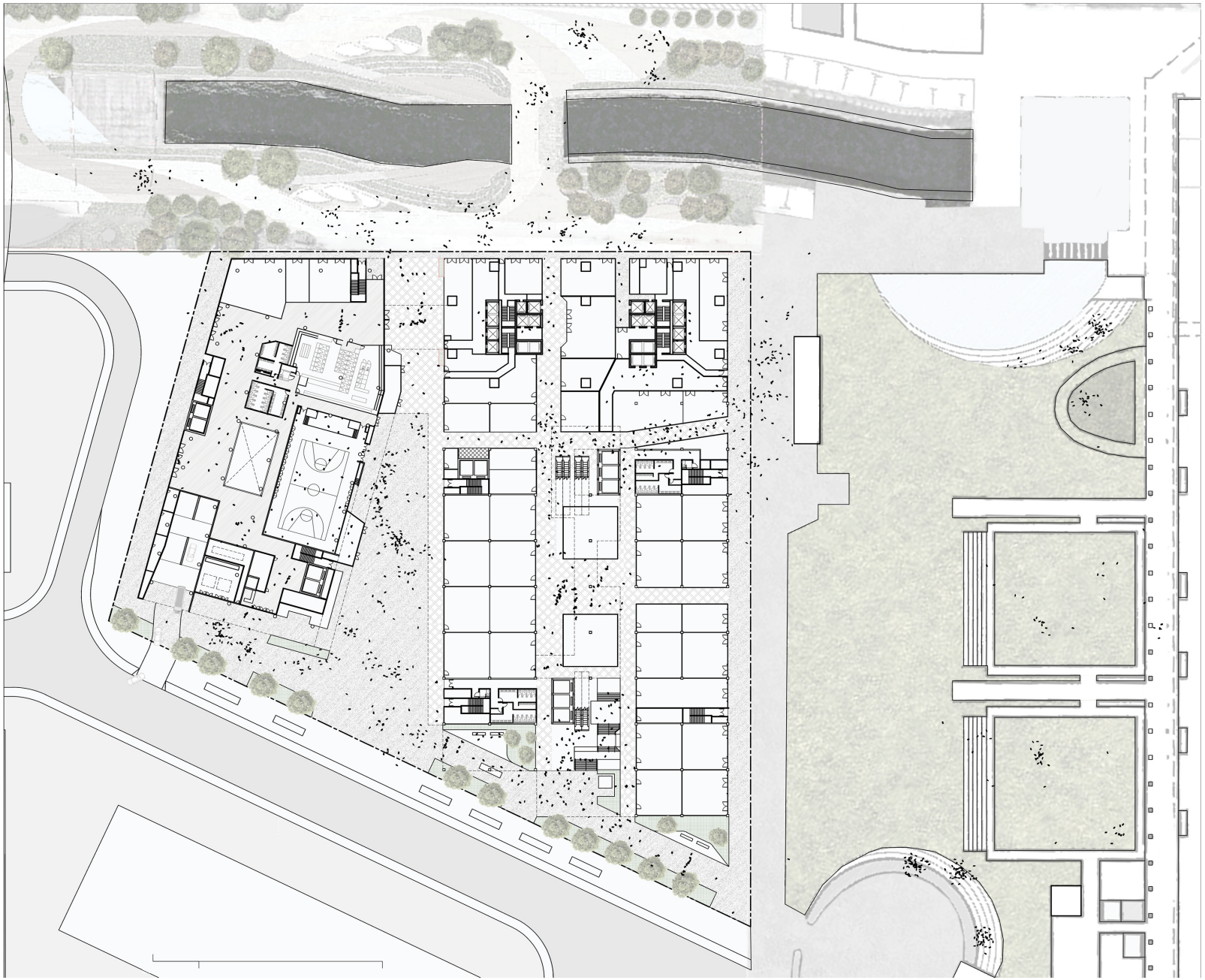


service cores | lift arrangement | outtriggers | shading system

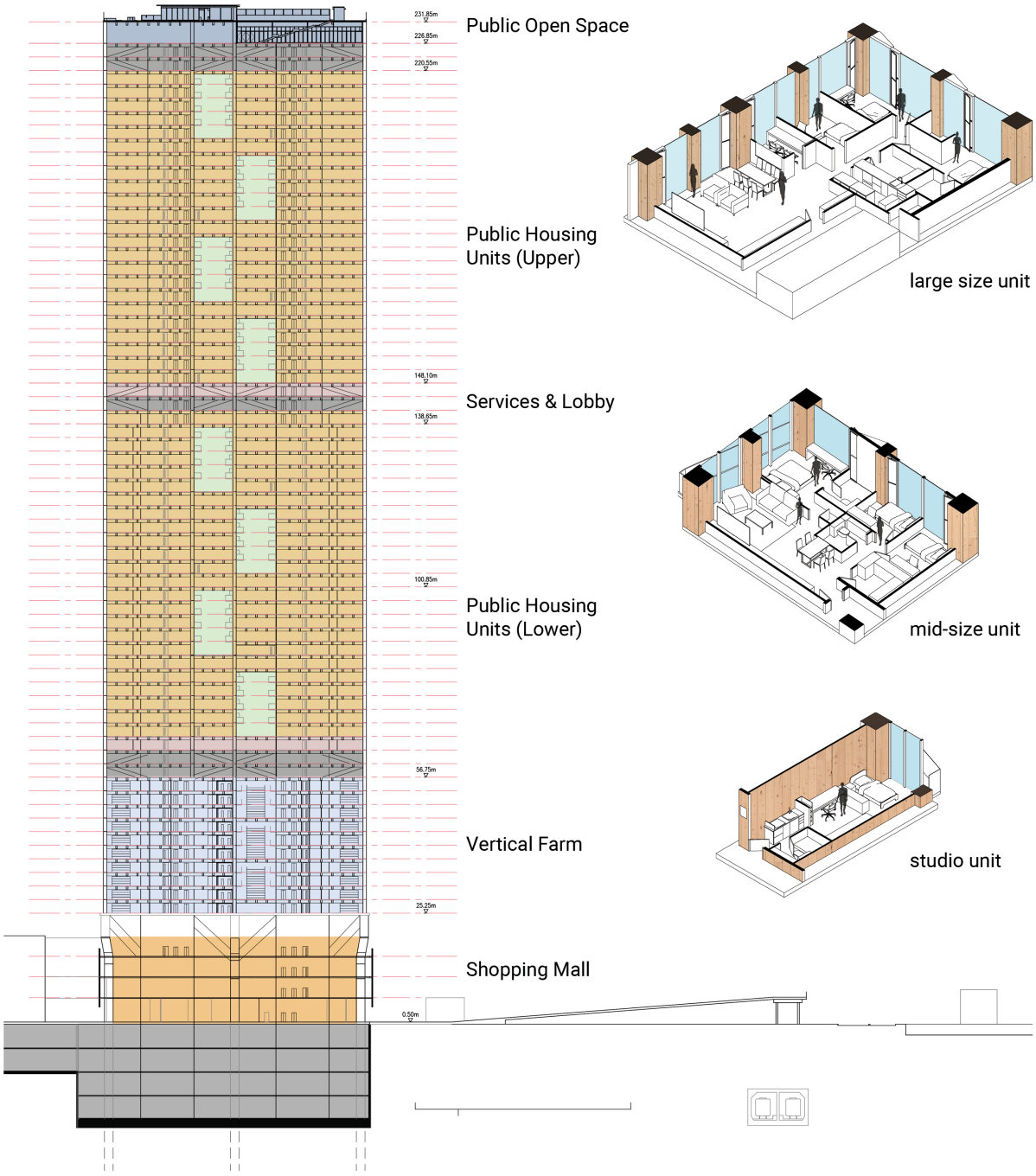


Parametric Structure

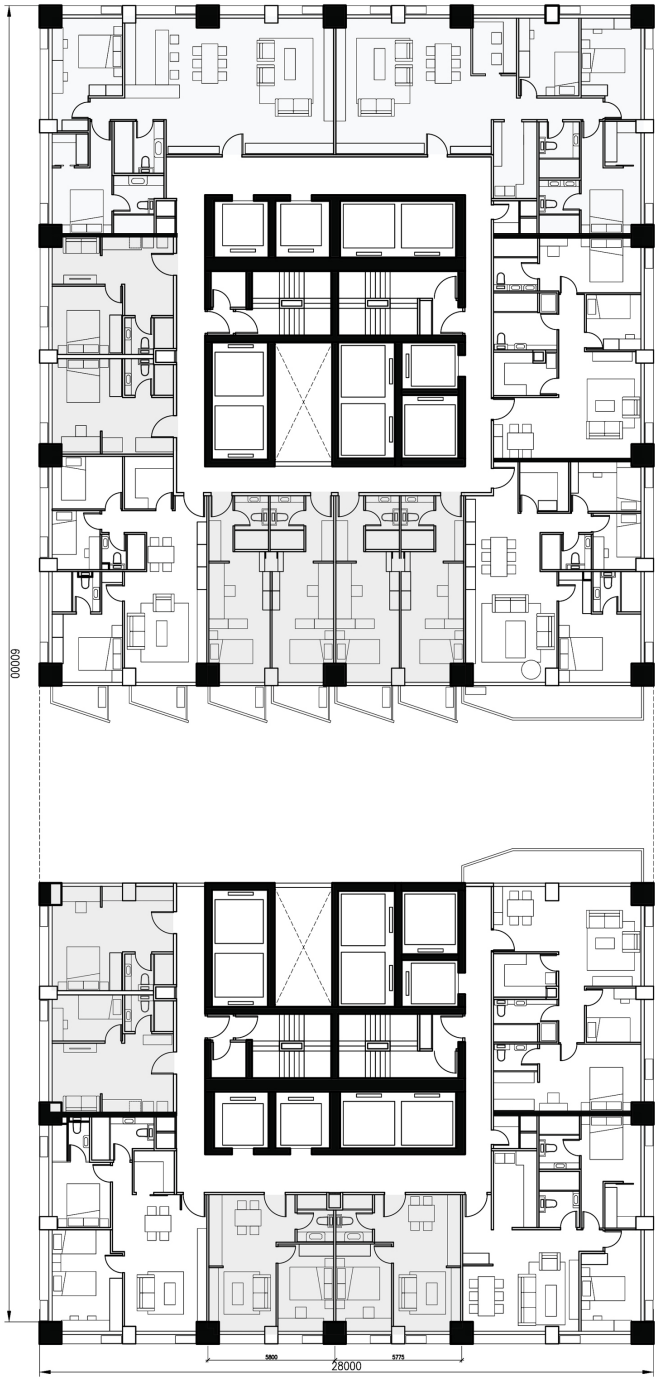




Street Level Layout Plan



Building Section

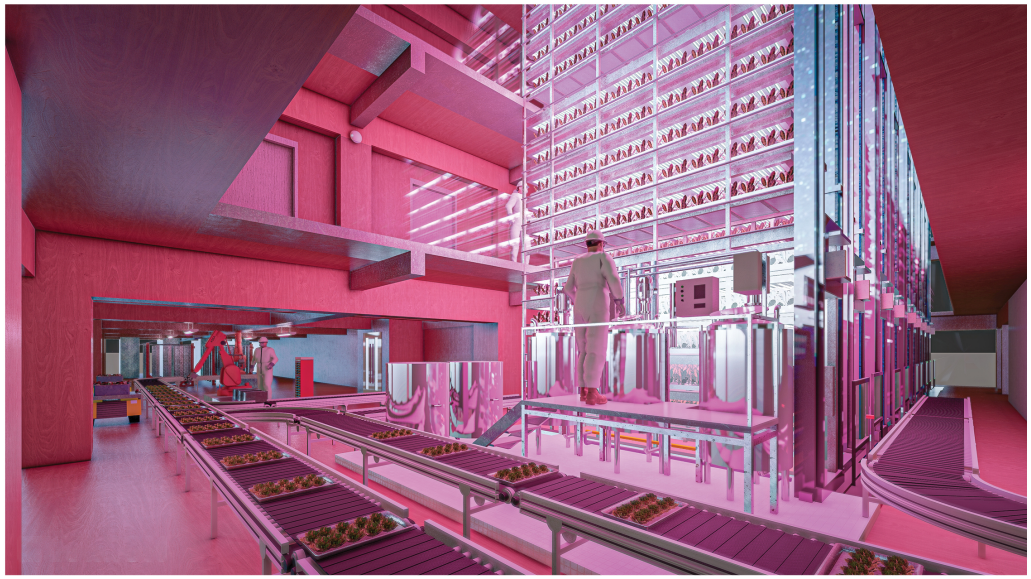


Typical Layout Plan

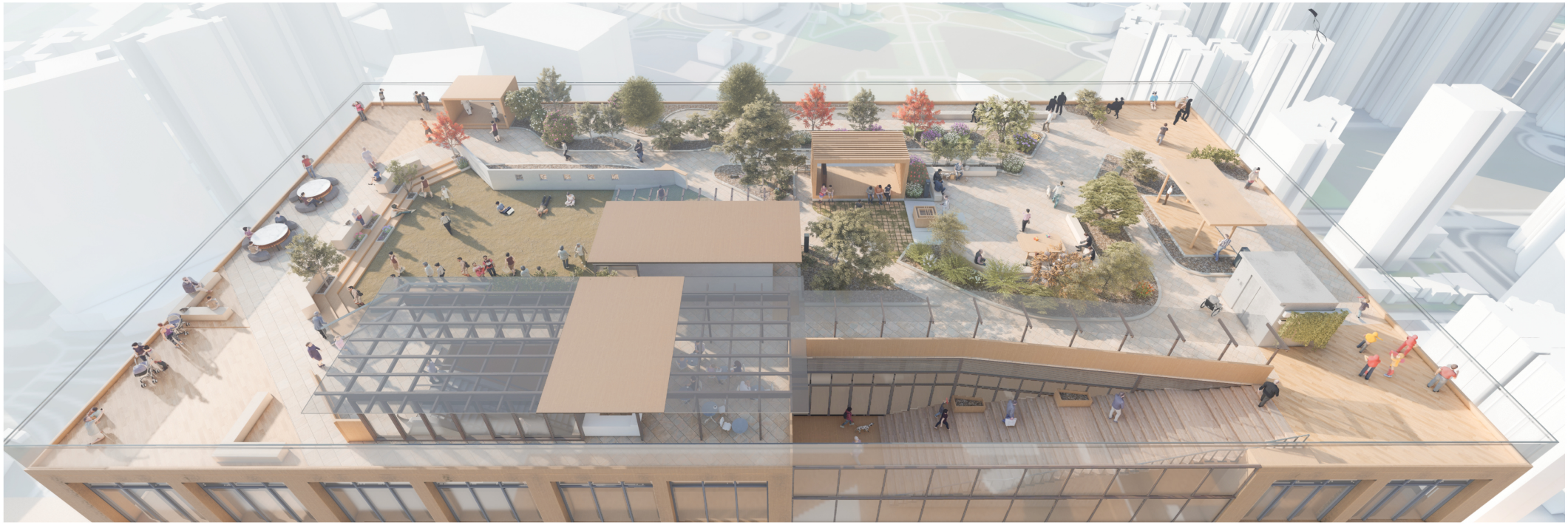




open space for residents



vertical farm in lower block



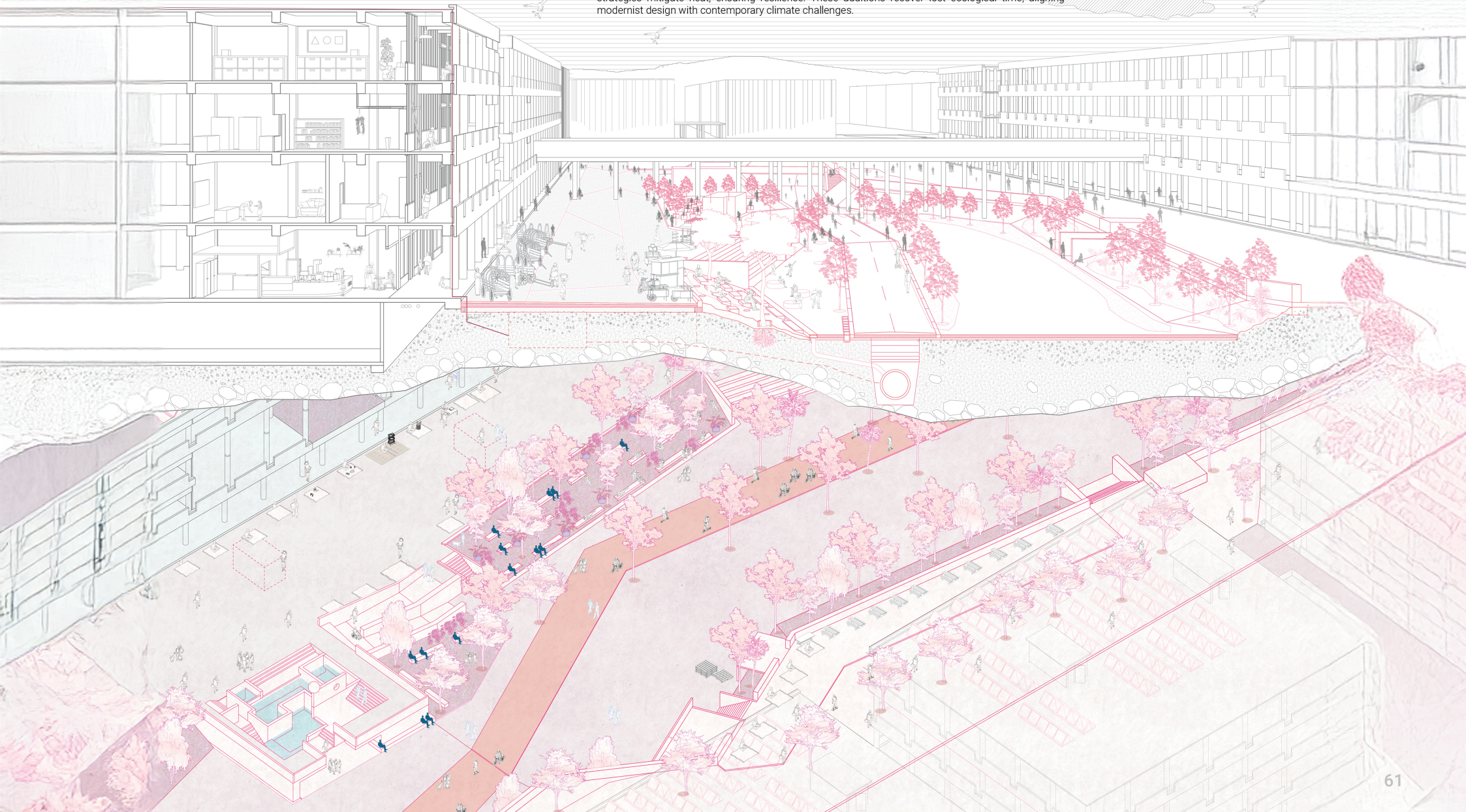
roof-top public open space

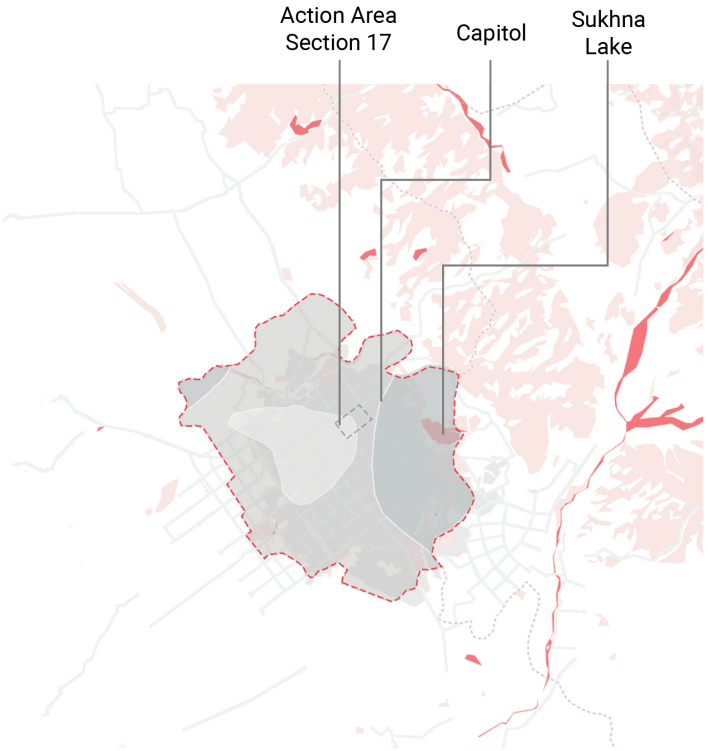
academic works

07 CHARDINGARH REGENERATION

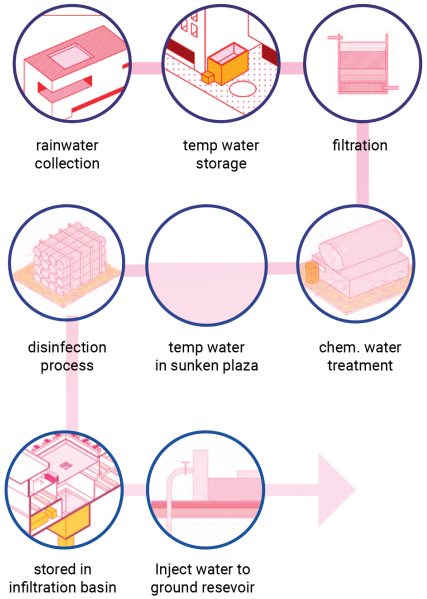
Chardingarh, India | M.Arch Final Design Thesis | Urbanism & Landscape | 2021
Coordinated by Manu Sobti and Ali Rad Yousefnia

Integrating climate-responsive elements into Corbusier's Chandigarh, new interventions include shaded green corridors, permeable urban surfaces, and passive cooling structures. Enhanced water management through bioswales and rainwater harvesting restores balance, while adaptive landscape strategies mitigate heat, ensuring resilience. These additions recover lost ecological time, aligning modernist design with contemporary climate challenges.

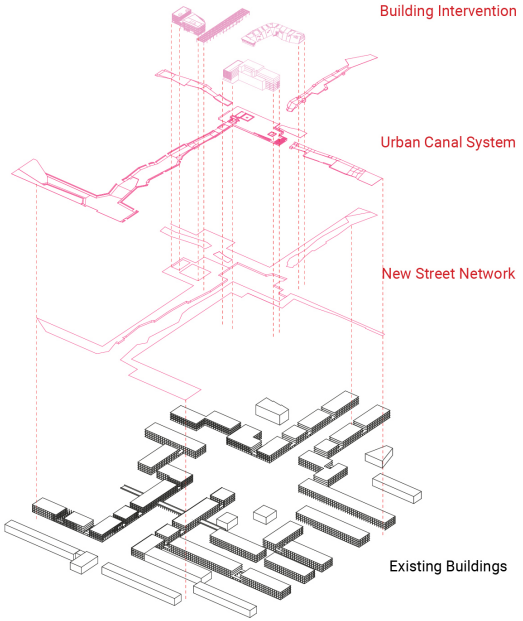




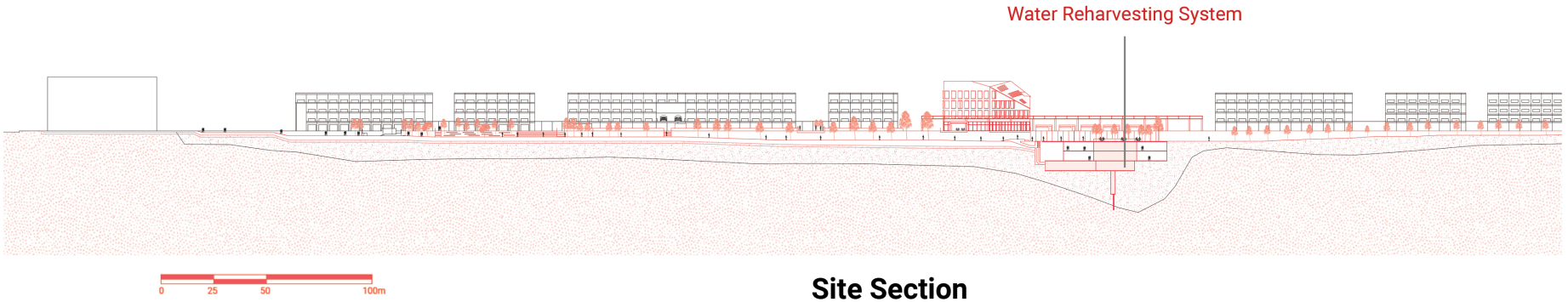
location & aquafier depthmap



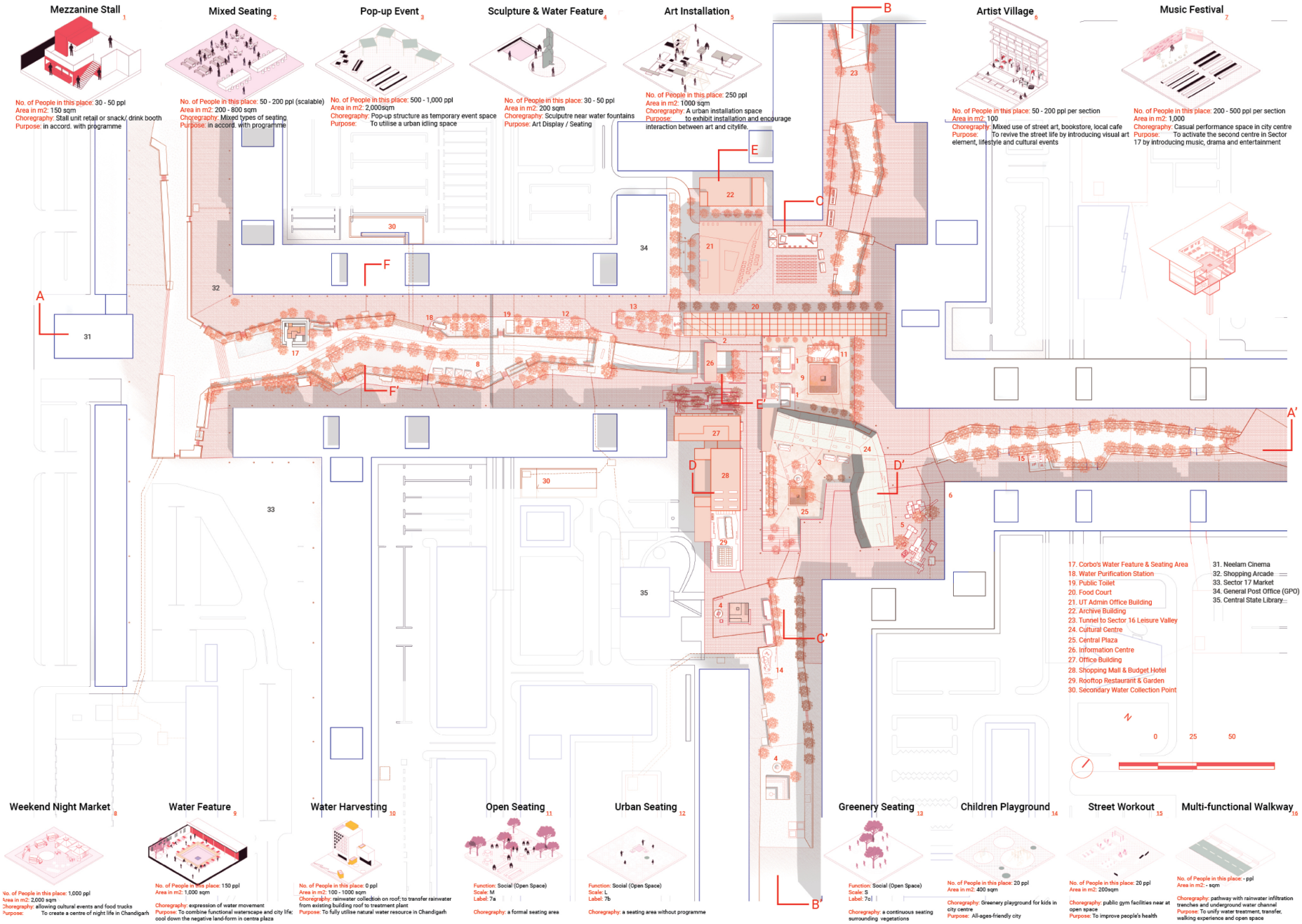
aquafier recharge scheme



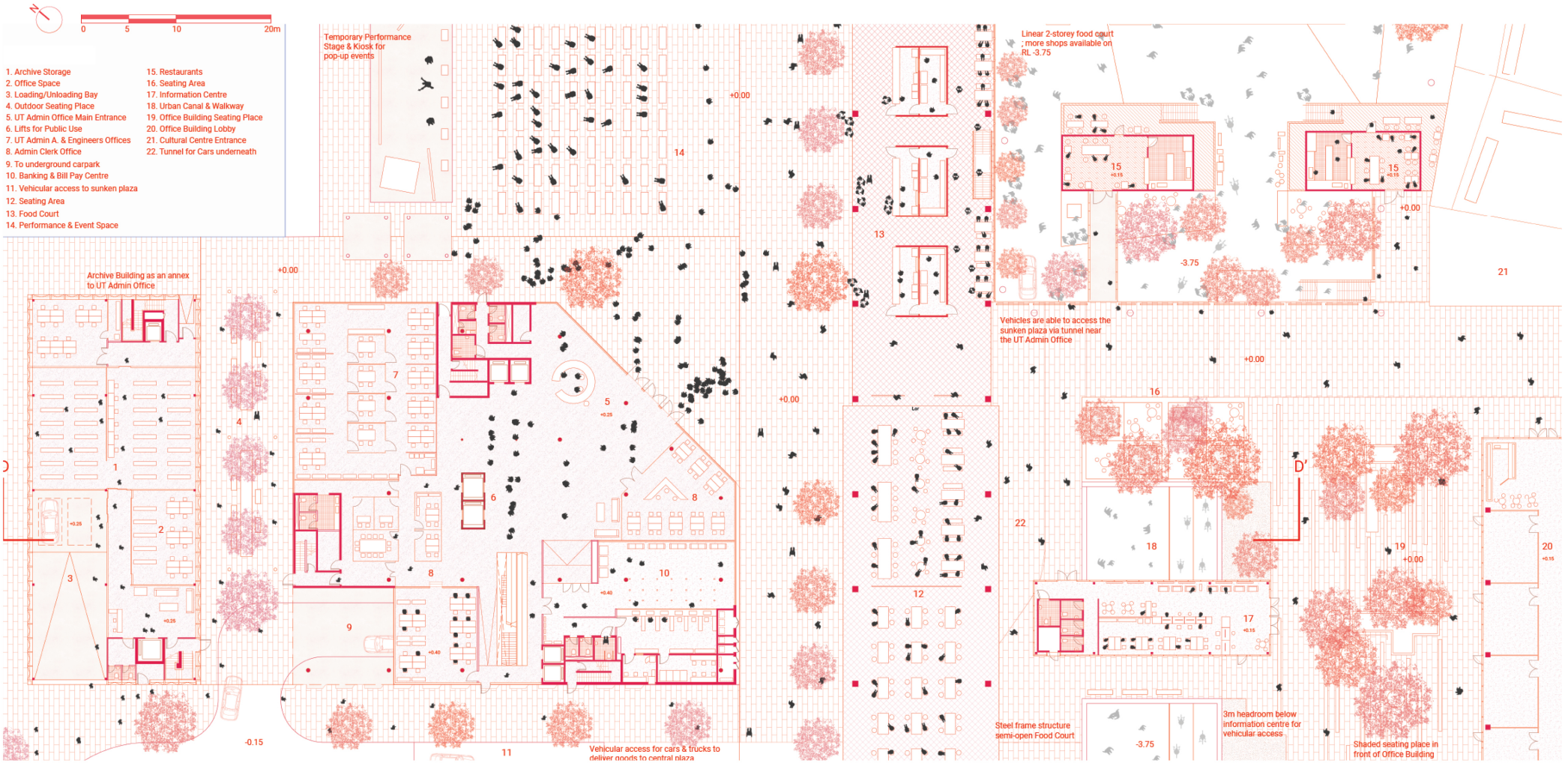
new vs existing



Site Section



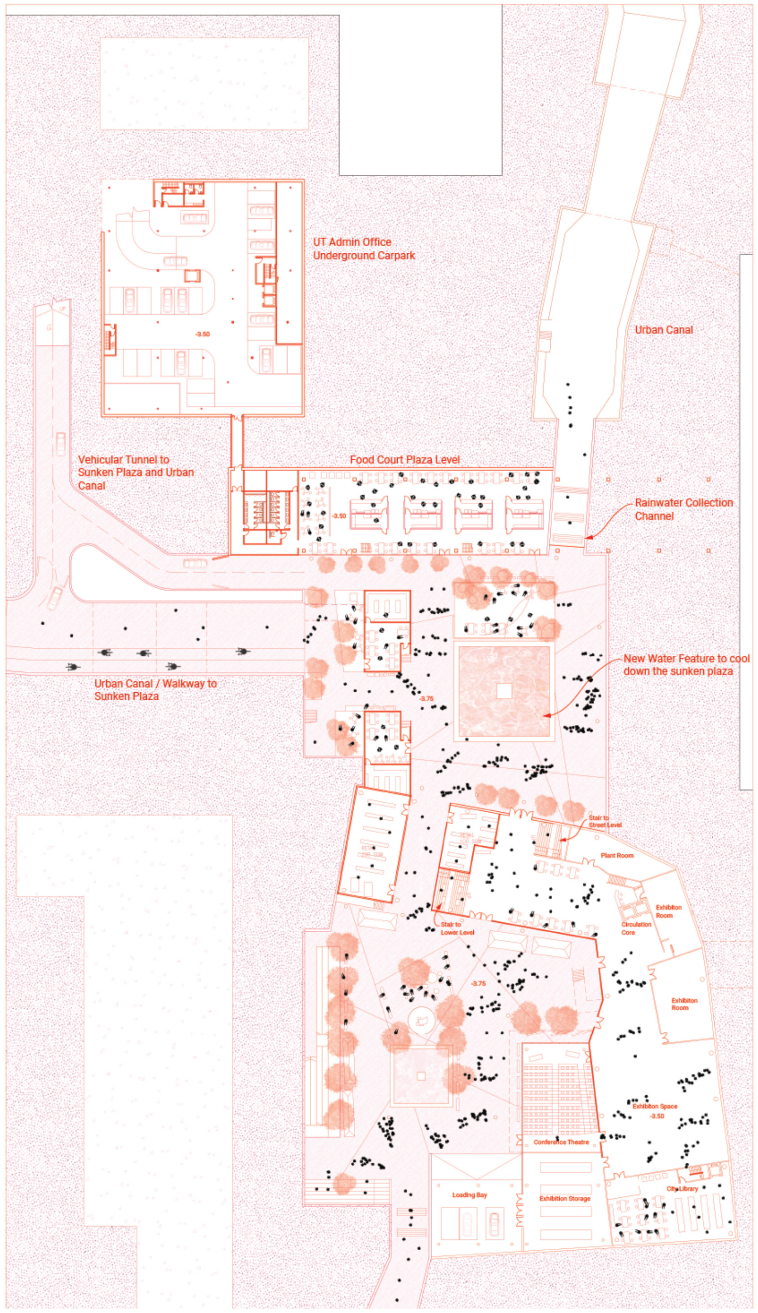
Master Plan - Sector 17



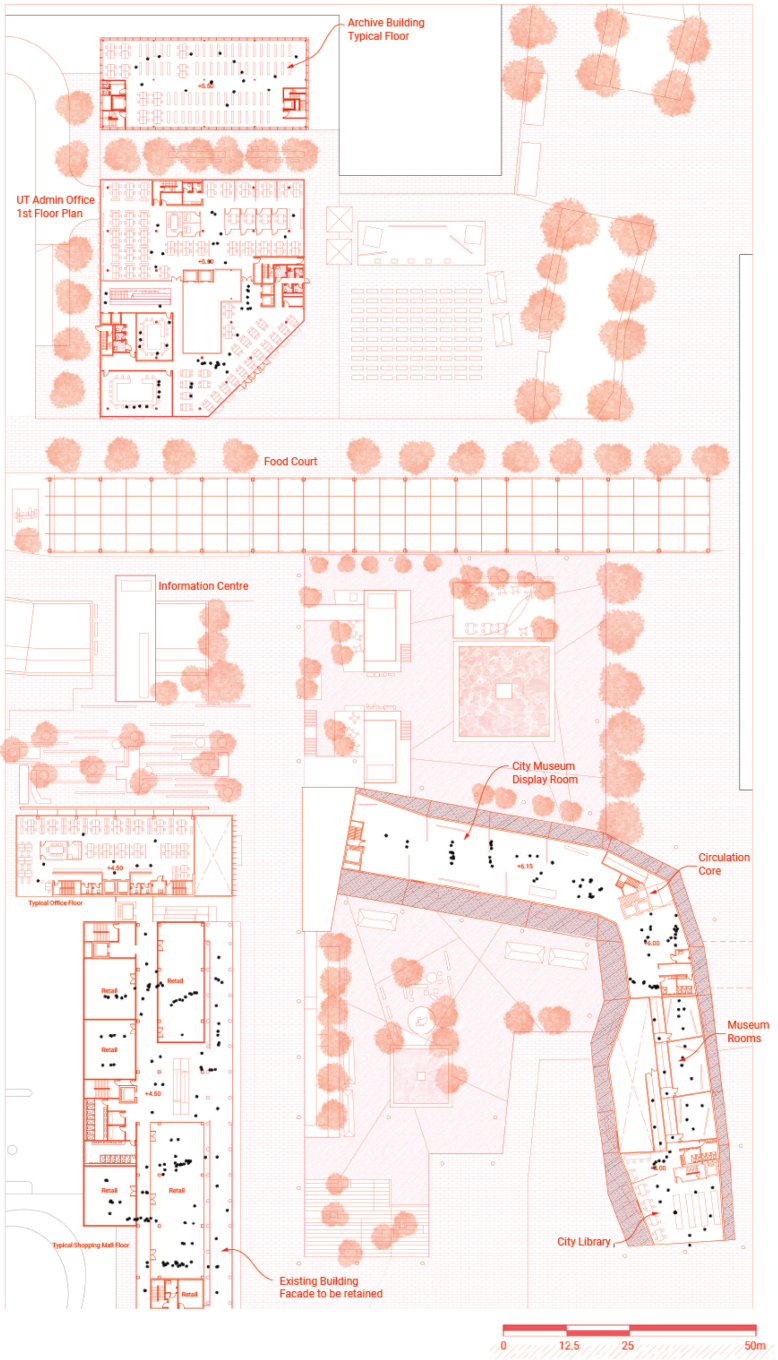
Plan - Sector 17 Centre



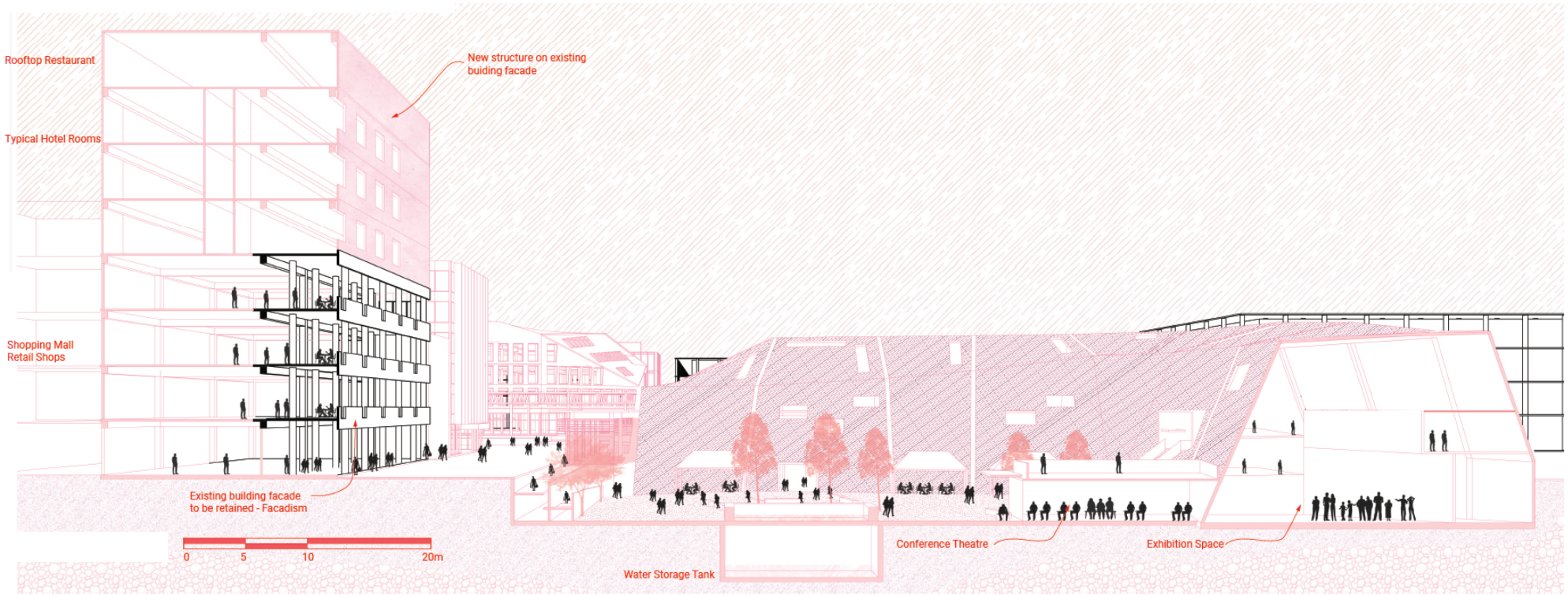
Basement Plan
Water feature RL8.50



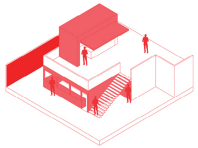
Floor Plan
Sunken Plaza RL-3.50



Floor Plan
Central Plaza RL 5.50



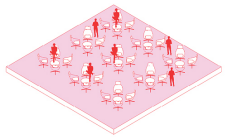
Site Section - Cultural Centre



Mezzanine Stall

No. of People in this place: 30 - 50 ppl
Area in m2: 150 sqm
Function: Commercial
Scale: M
Label: 1a

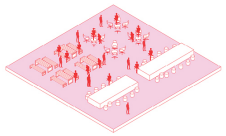
Choreography: Stall unit retail or snack/ drink booth
Purpose: in accord. with programme



Homogeneous Seating

No. of People in this place: 16 - 150 ppl
Area in m2: 100 - 400 sqm
Function: Social/ Commercial
Scale: S - M
Label: 1b

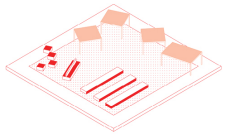
Choreography: Single type of seating for customers of snack/ drink booth
Purpose: in accord. with programme



Mixed Seating

No. of People in this place: 50 - 200 ppl
Area in m2: 200 - 800 sqm
Function: Social/ Commercial
Scale: M-L
Label: 1c

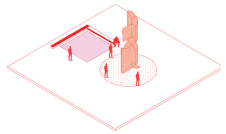
Choreography: Mixed types of seating for customers of snack/ drink booth as well as retail customers
Purpose: in accord. with programme



Pop-up Event

No. of People in this place: 500 - 1,000 ppl
Area in m2: 2,000sqm
Function: Social /Commercial
Scale: L - XL
Label: 3b

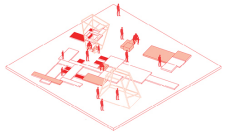
Choreography: Pop-up structure to create temporary event space
Purpose: To utilise a urban space while the space is idling



Sculpture & Water Feature

No. of People in this place: 30 - 50 ppl
Area in m2: 200 sqm
Function: Art / Social
Scale: M
Label: 2a

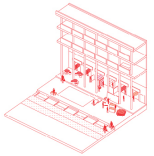
Choreography: Sculputre near existing Corbo's water fountains
Purpose: in accord. with programme



Art Installation

No. of People in this place: 250 ppl
Area in m2: 1000 sqm
Function: Social / Art
Scale: L
Label: 2b

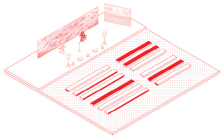
Choreography: A urban installation space
Purpose: to exhibit installation and encourage interaction between art and citylife.



Artist Village

No. of People: 50 - 200 ppl per section
Area in m2: 100 sqm
Function: Commercial / Art / Social
Scale: M
Label: 2c

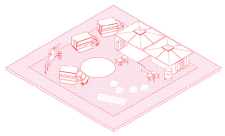
Choreography: Mixed use of street art, bookstore, local cafe
Purpose: To revive the street life beyond portion near Neelam Theatre by introducing visual art element, lifestyle and cultural events



Music Festival

No. of People: 200 - 1,000 ppl per section
Area in m2: 1000 sqm
Function: Commercial / Social
Scale: L
Label: 3c

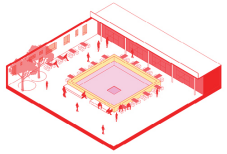
Choreography: Casual performance space in city centre
Purpose: To activate the second centre in Sector 17 by introducing music, drama and entertainment



Weekend Night Market

No. of People in this place: 1,000 ppl
Area in m2: 2,000 sqm
Function: Social / Commercial
Scale: XL
Label: 3a

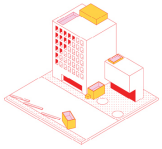
Choreography: allowing cultural events, food trucks and outdoor performance
Purpose: To create a centre of night life in Chandigarh



Water Pool

No. of People in this place: 150 ppl
Area in m2: 1,000 sqm
Function: Ecological / Commercial / Cultural
Scale: L
Label: 6a

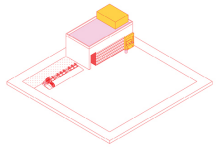
Choreography: expression of water movement in a retail space
Purpose: To combine functional waterscape and city life and cool down the negative land-form in centra plaza



Water Harvesting

No. of People in this place: 0 ppl
Area in m2: 100 - 1000 sqm
Function: Ecological
Scale: S-L
Label: 6c

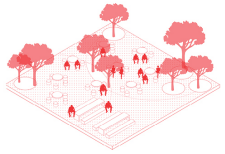
Choreography: Rainwater collection on roof; to transfer rainwater from existing building roof to treatment plant
Purpose: To fully utilise natural water resource in Chandigarh



Water Purification Station

No. of People in this place: 10 - 20 ppl
Area in m2: 100sqm
Function: Ecological/ Social
Scale: S
Label: 5c

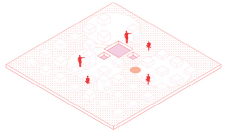
Choreography: micro-water station to purify rainwater collected; free water supply for local people; sub-station to transfer excess water to treatment plant
Purpose: To imporove water safety, encourage water recycling



Open Seating

Function: Social (Open Space)
Scale: M
Label: 7a

Choreography: a formal seating area for having meal / working



Urban Seating

Function: Social (Open Space)
Scale: L
Label: 7b

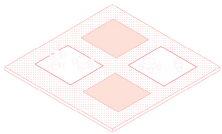
Choreography: A seating area without programme



Greenery Seating

Function: Social (Open Space)
Scale: S
Label: 7c

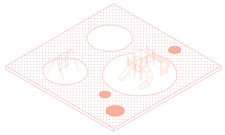
Choreography: A continuous seating surrounding vegetations



Small Meeting Space

Function: Social (Open Space)
Scale: M
Label: 7d

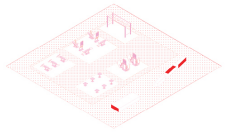
Choreography: Discrete meeting space for a group of people



Children Playground

No. of People in this place: 20 ppl
Area in m2: 400 sqm
Function: Social
Scale: M
Label: 8a

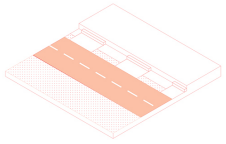
Choreography: Greenery playground for kids in city centre
Purpose: To create a urban space in a all-ages-friendly city



Street Workout

No. of People in this place: 20 ppl
Area in m2: 200 sqm
Function: Social
Scale: M
Label: 8b

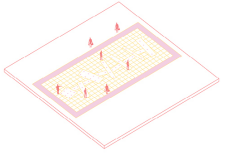
Choreography: public gym facilities near at open space
Purpose: To improve people's health and fitness



Multi-functional Walkway

No. of People in this place: 0 ppl
Area in m2: - sqm
Function: Ecological / Social
Scale: S-L
Label: 8c

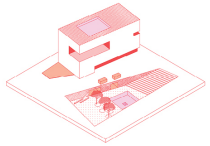
Choreography: greenry pathway with rainwater infiltration trenches and underground water channel; for rest and transportation
Purpose: To unify water treatment, transfer, walking experience and open space



Water Playground

Function: Social (Open Space)
Scale: M
Label: -

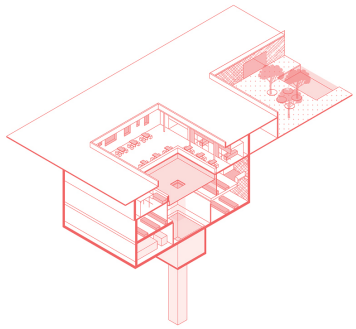
Choreography: a casual and interactive water feature



Sunken Plaza

Function: Social (Open Space)
Scale: XL
Label: -

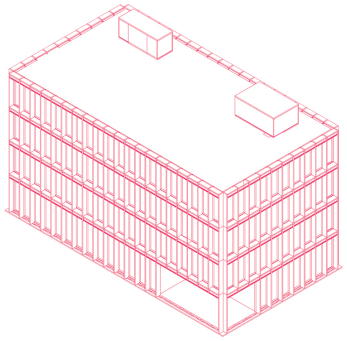
Choreography: Rainwater receptacle; final line of defence of Sector 17



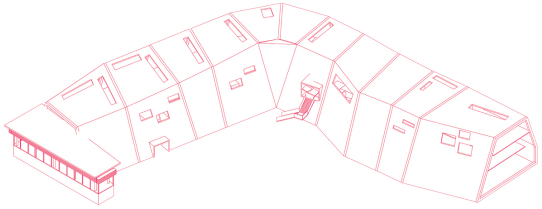
Underground Complex

No. of People in this place: 200 ppl
Area in m2: 2000 sqm
Function: Social /Commercial / Ecological
Scale: L
Label: 4b

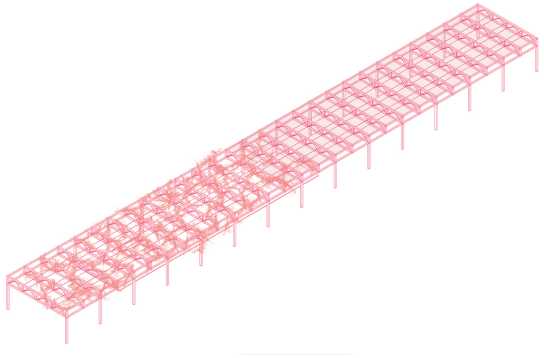
Choreography: Water reharvesting facility in negative land-form ; multifunctional space comprising ofrestaurant and retails around waterscape; historical museum annex to main building;
rainwater storage tank & treatment plant; bore to deep aquifers
Purpose: To collect rainwater from other sub-station in Sector 17 to underground tank and finally the central water treatment plant before recharging the deep aquifers



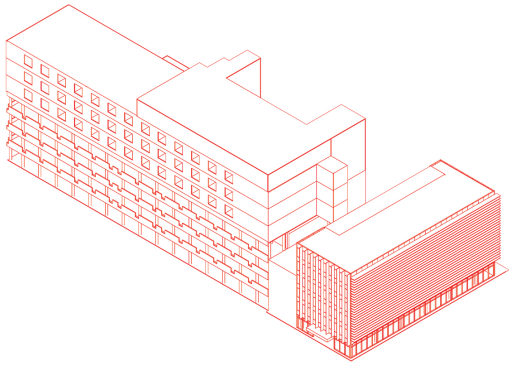
Gov. Archive Building



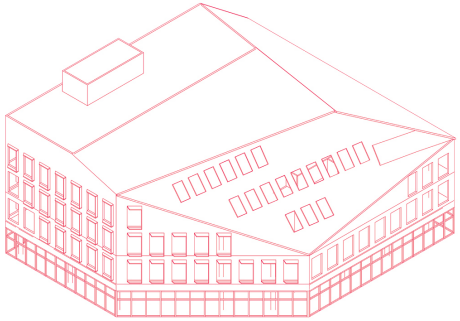
Cultural Centre



Street Mall & Food Street



Office Building + Shopping Mall & Budget Hotel

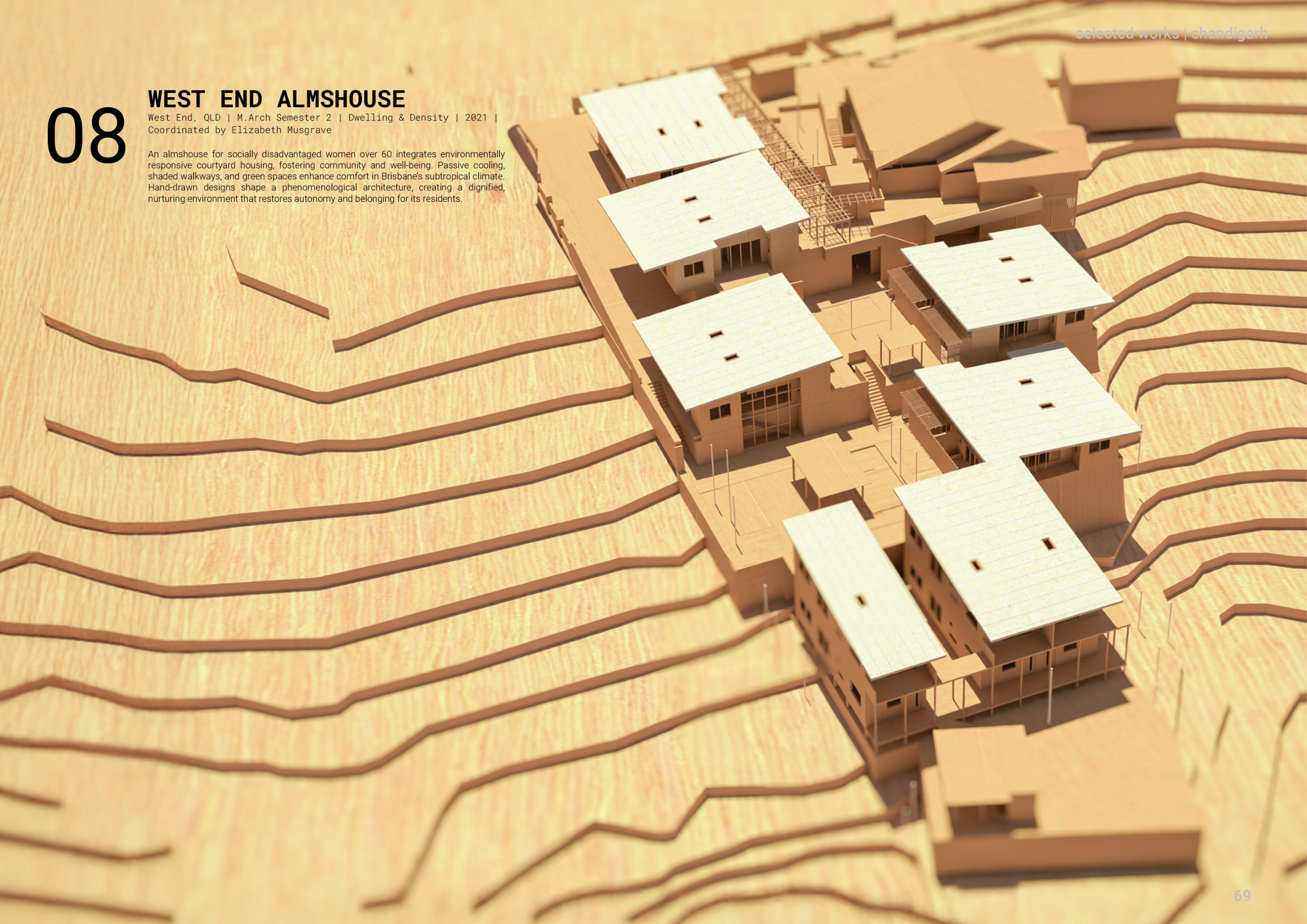


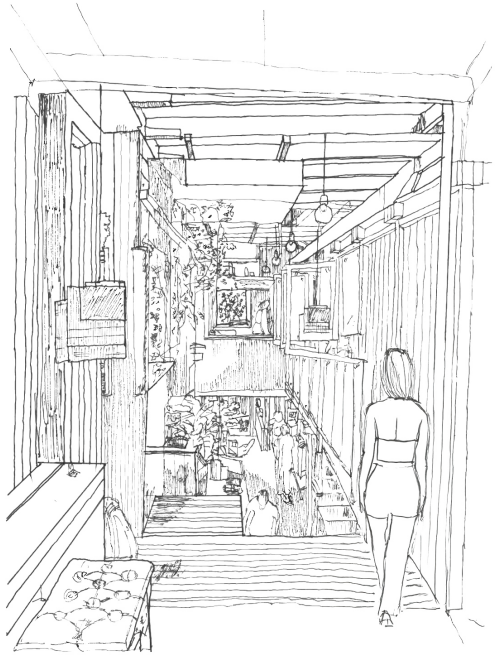
City Admin Office Building

08 WEST END ALMSHOUSE

West End, QLD | M.Arch Semester 2 | Dwelling & Density | 2021 | Coordinated by Elizabeth Musgrave

An almshouse for socially disadvantaged women over 60 integrates environmentally responsive courtyard housing, fostering community and well-being. Passive cooling, shaded walkways, and green spaces enhance comfort in Brisbane's subtropical climate. Hand-drawn designs shape a phenomenological architecture, creating a dignified, nurturing environment that restores autonomy and belonging for its residents.

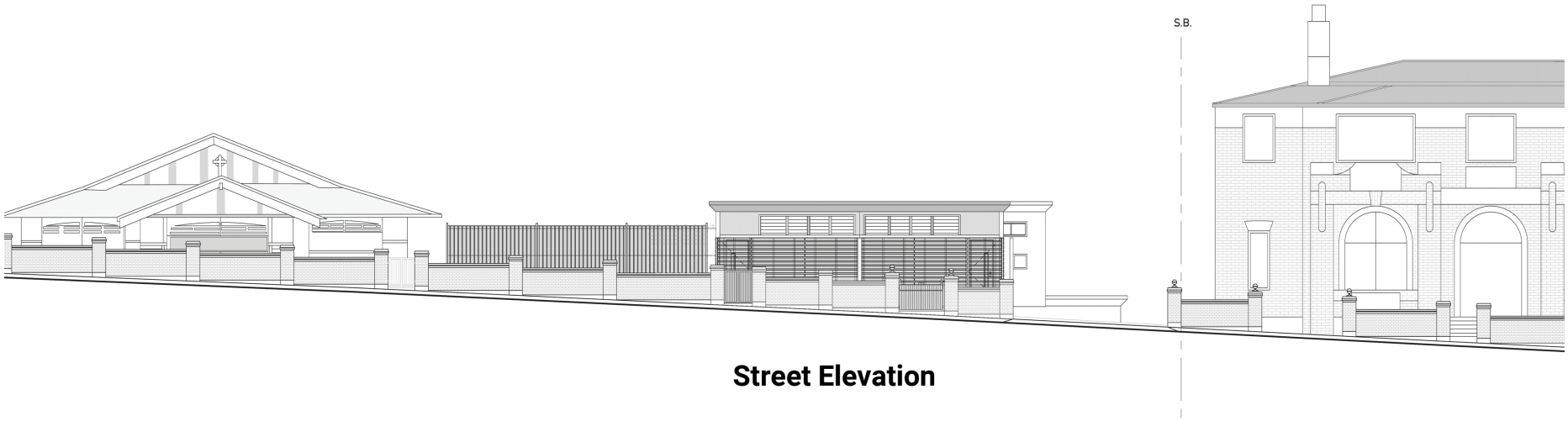








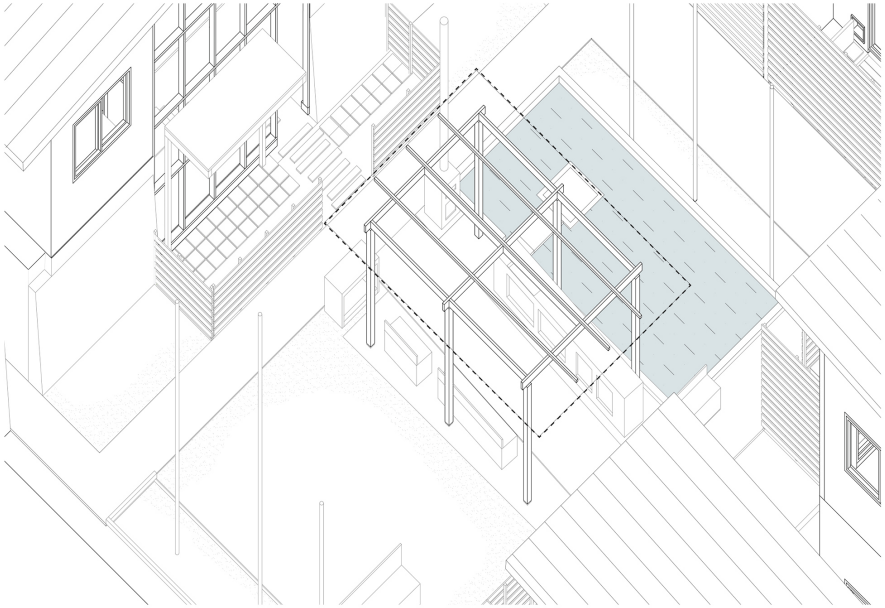
My Vision of West End in Brisbane



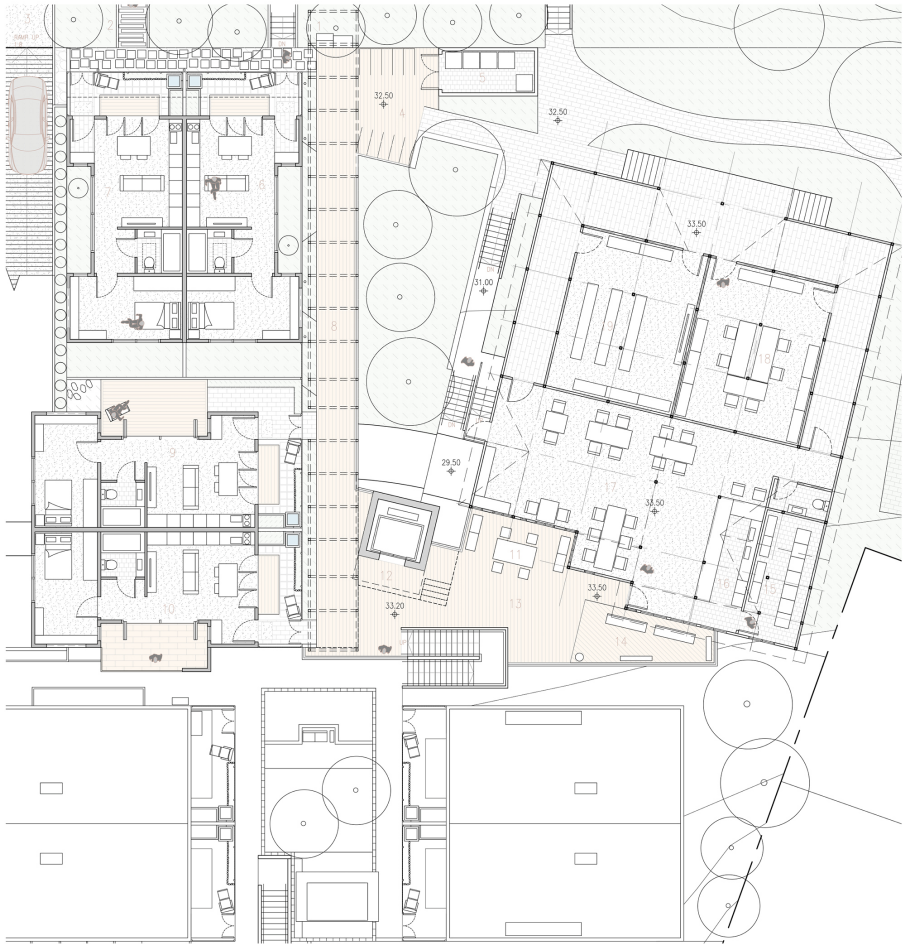
Street Elevation



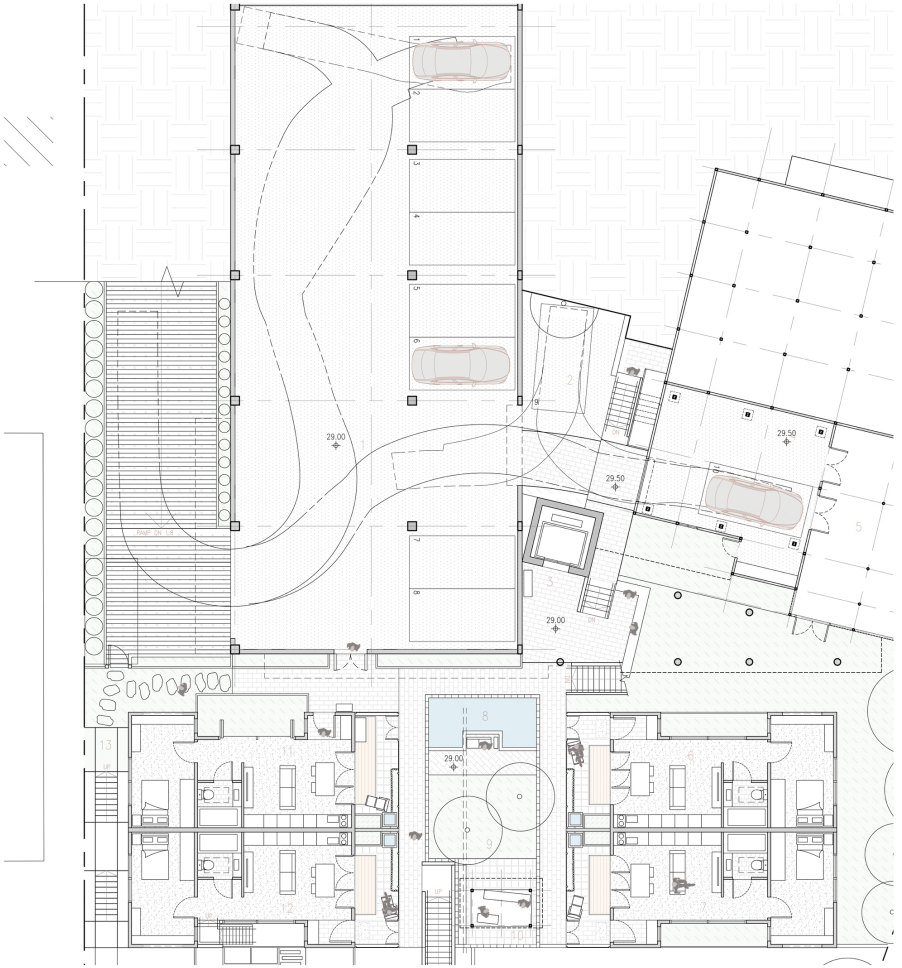
Street-House Threshold Design



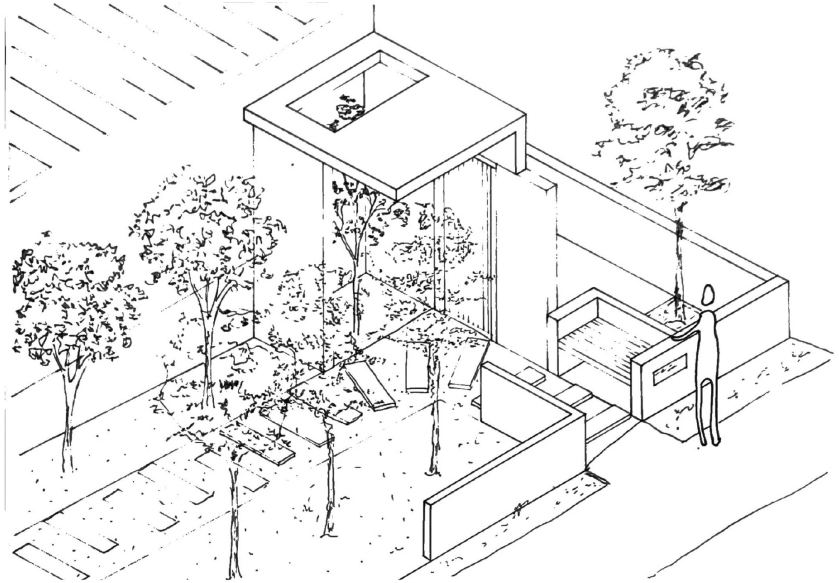
Courtyard-House Threshold Design



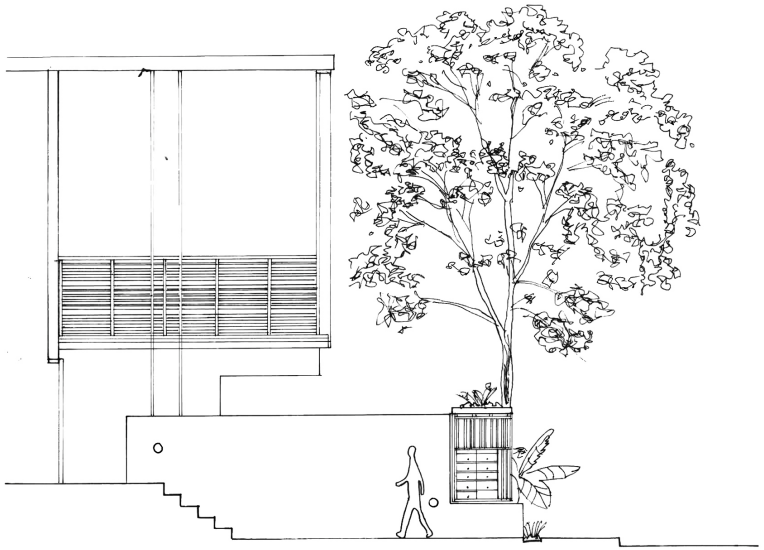
Street Level Layout Plan

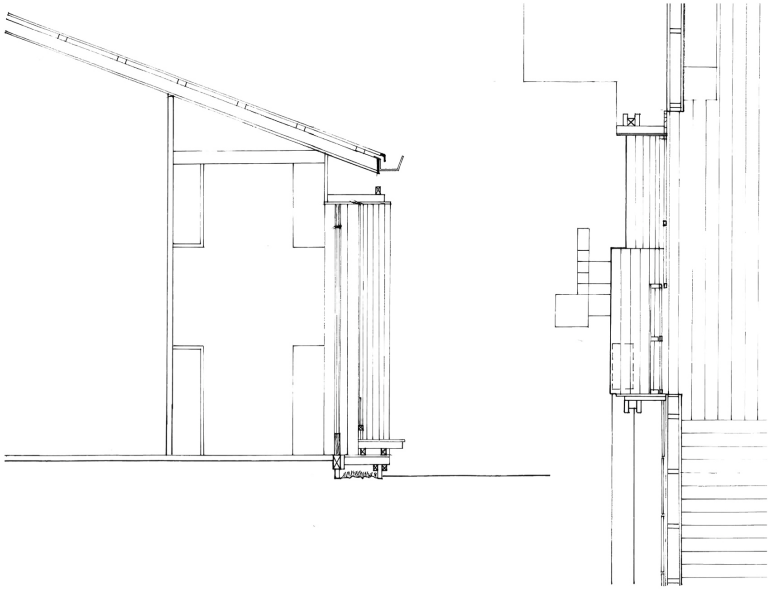


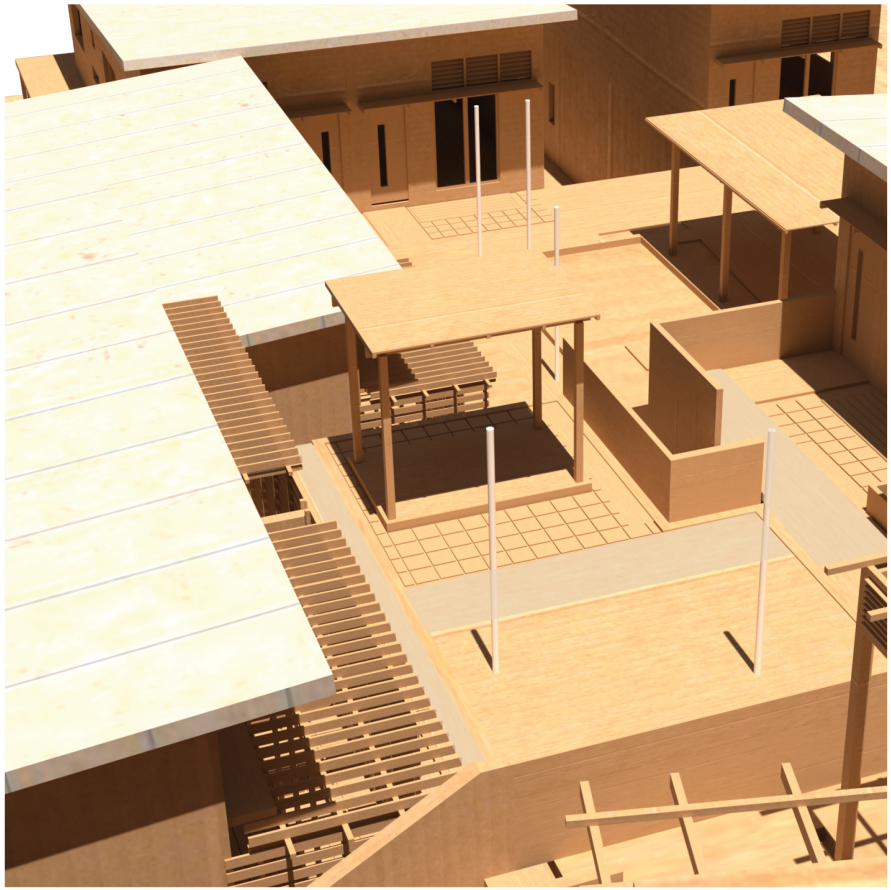
Below Grade Layout Plan

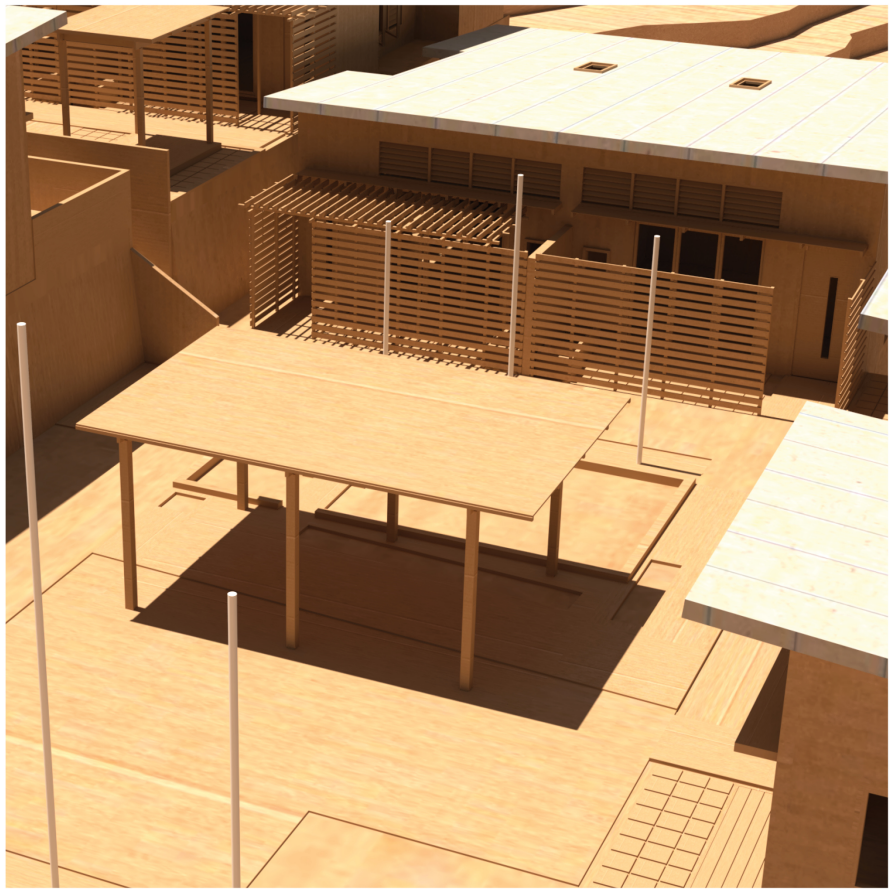












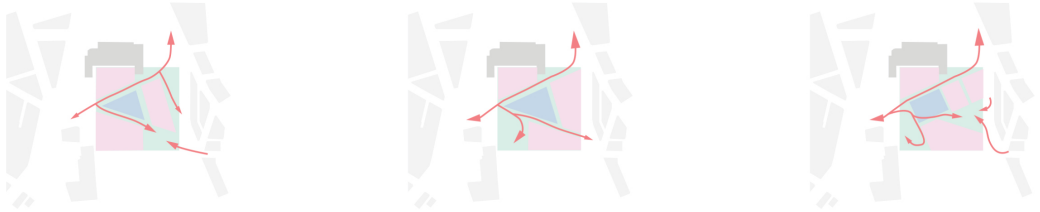
09

SYDNEY CENTRAL CAMPUS COMPLEX

Sydney, NSW | M.Arch Semester 1 | Institutions & Ideology | 2021 |
Coordinated by Dr Andrew Wilson and Paul Jones (OMA)

A university campus above Sydney Central Station integrates education with transit, creating a dynamic urban hub. Elevated structures preserve station operations while green terraces and public plazas enhance connectivity. Blending academic spaces with transport infrastructure, the design fosters seamless movement, activating the station as a gateway to knowledge and exploration.

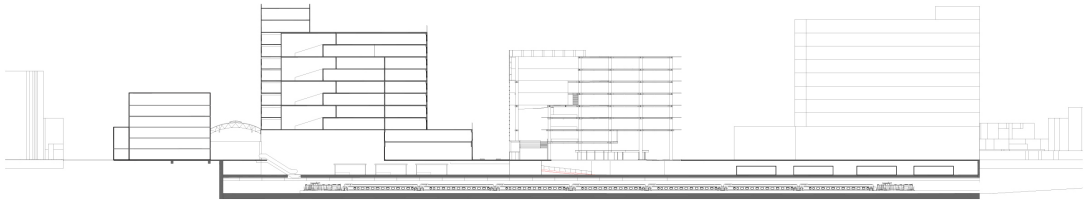




Regenerated fabric knitted



New fabric knits the west and east together



Urban Section

Retail & Publicly opened area

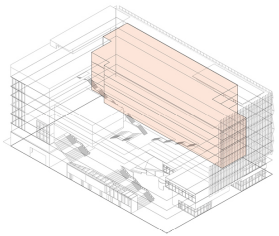
Library Support

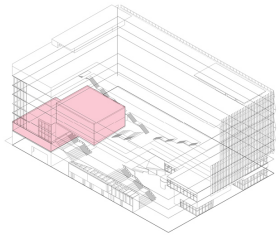
Teaching Facilities

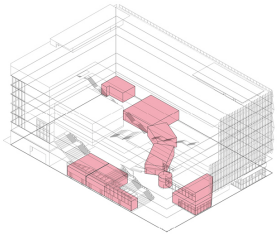
Books Collection

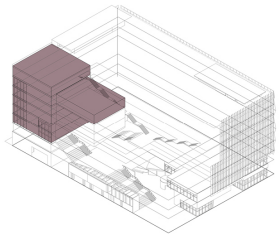
M&E

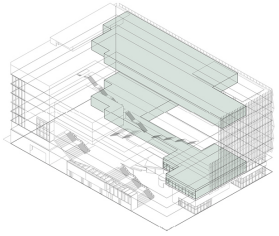
Circulation and Open Space

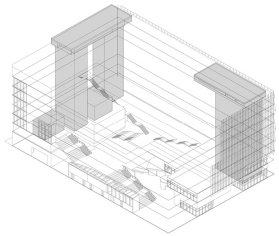


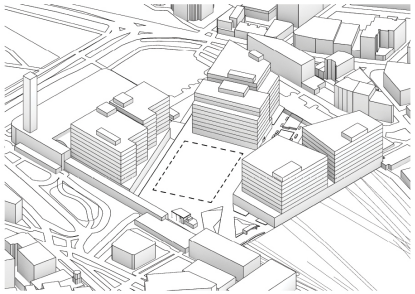




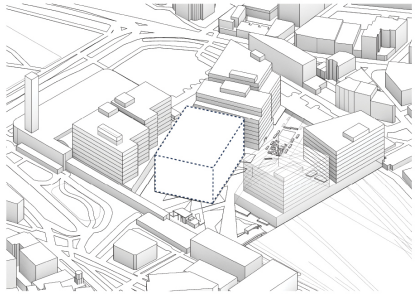




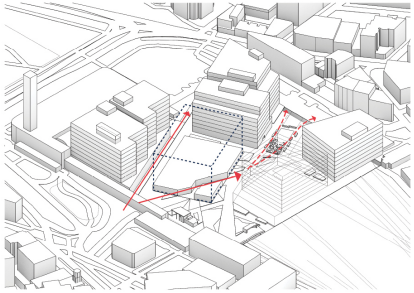




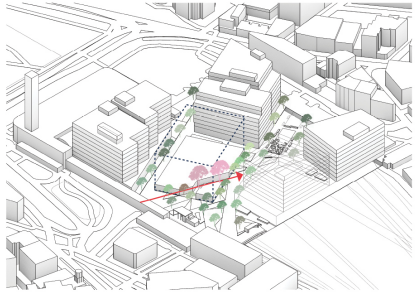
Site



Volume



Walkways

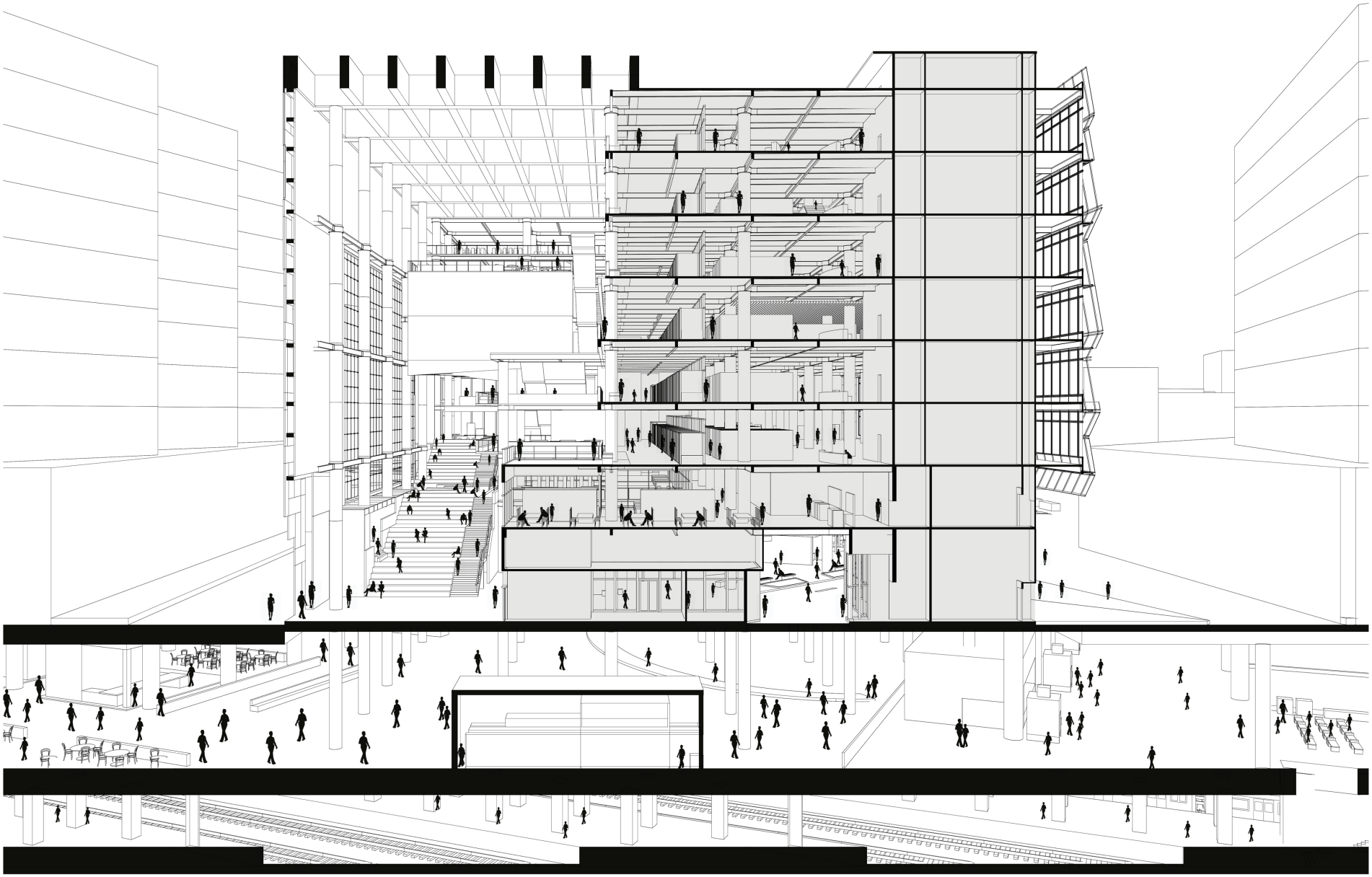


Green Corridors

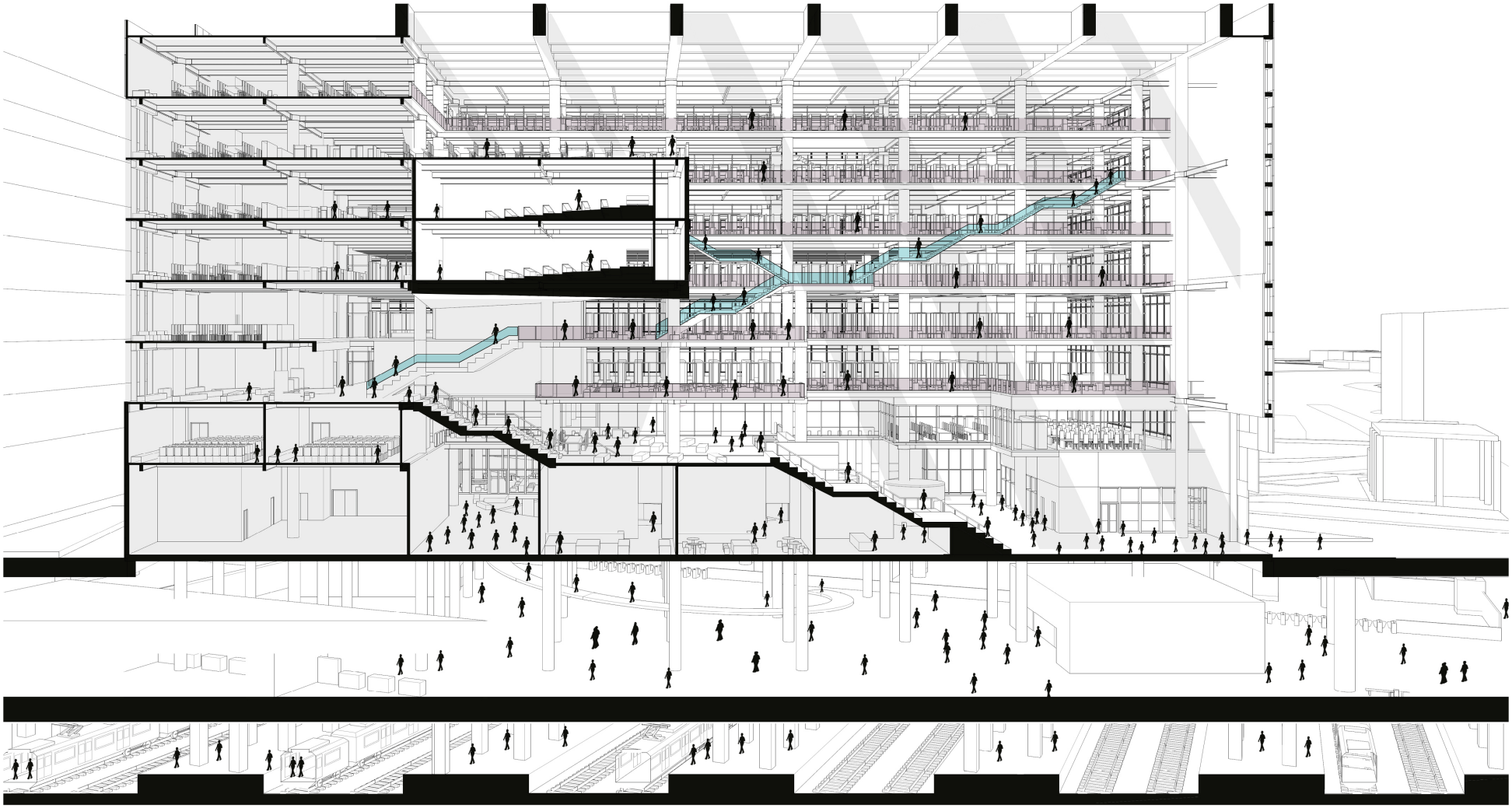


Street Level Layout Plan

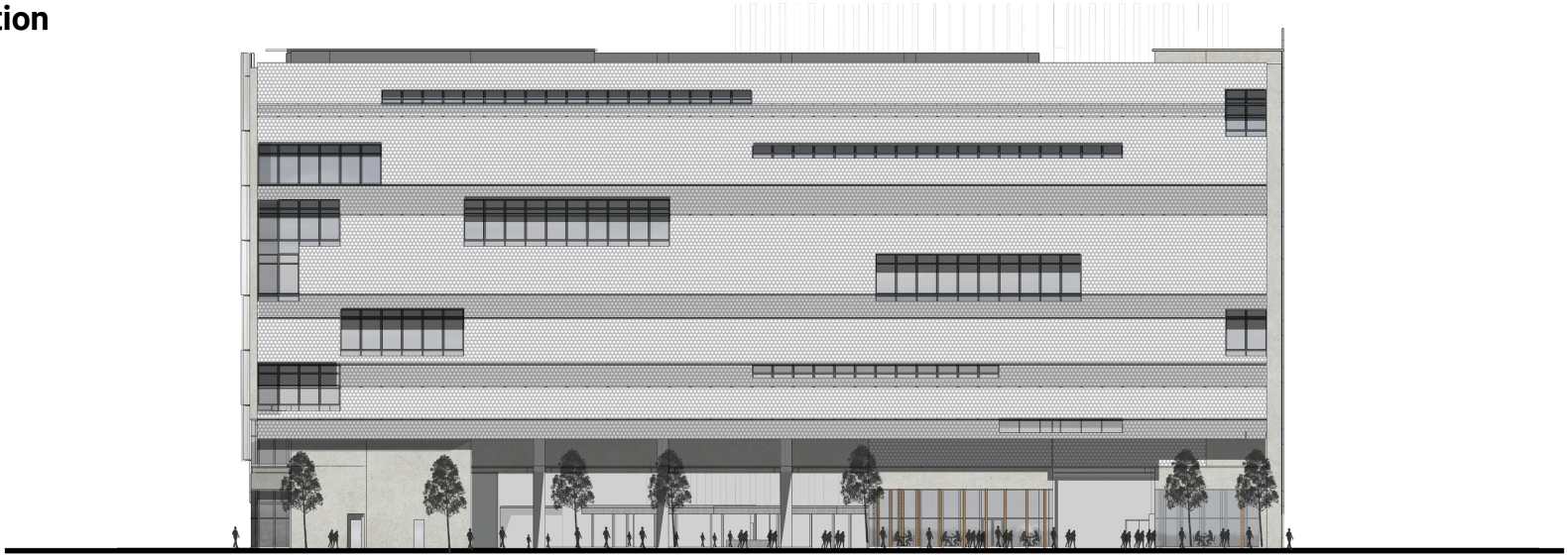
section at entrance



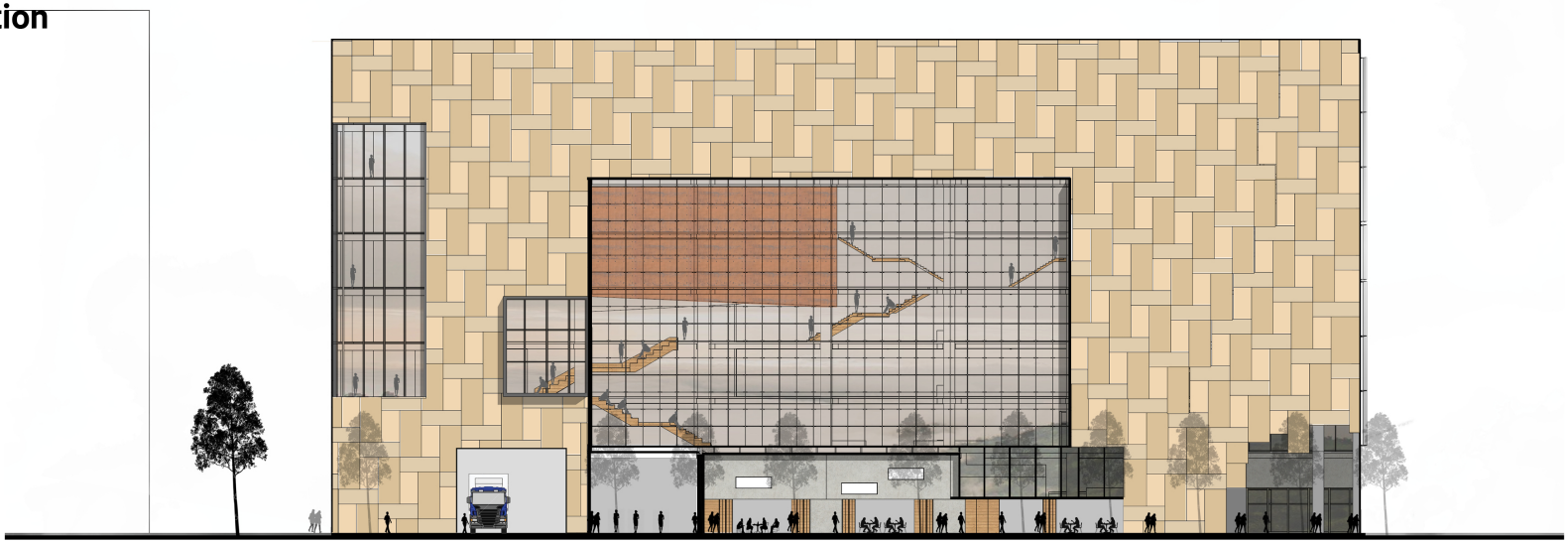
section at grant staircase

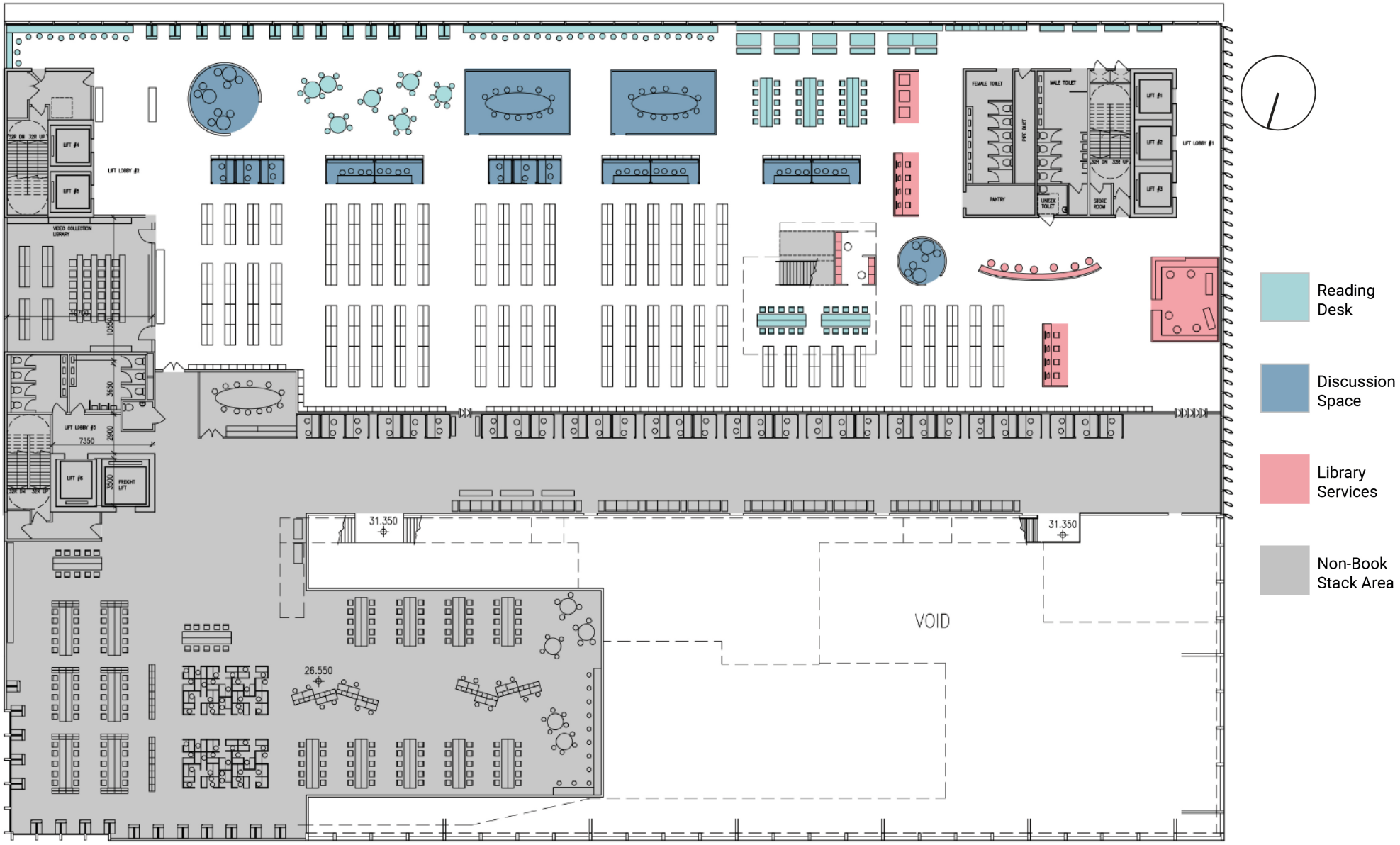


front elevation

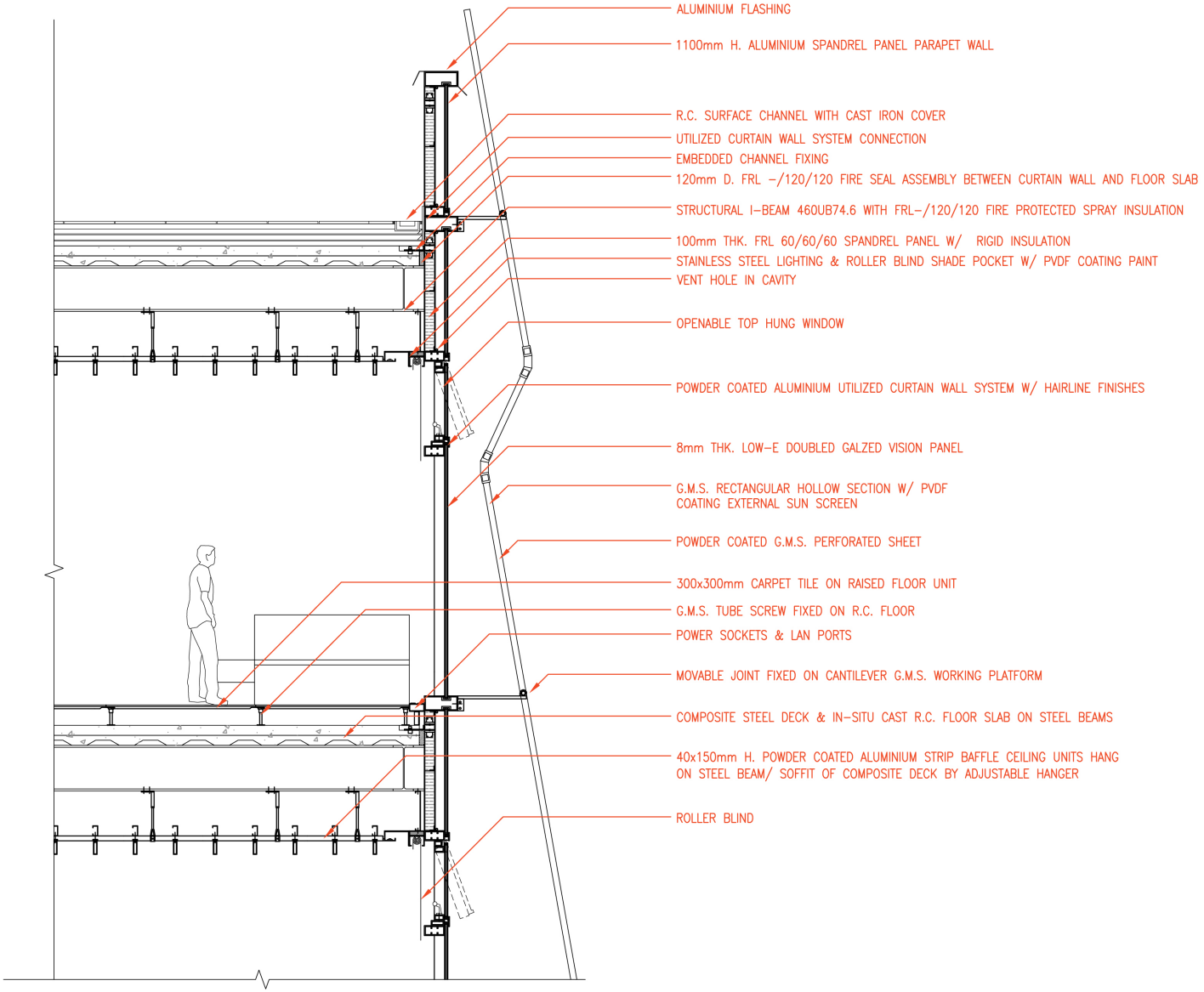


back elevation

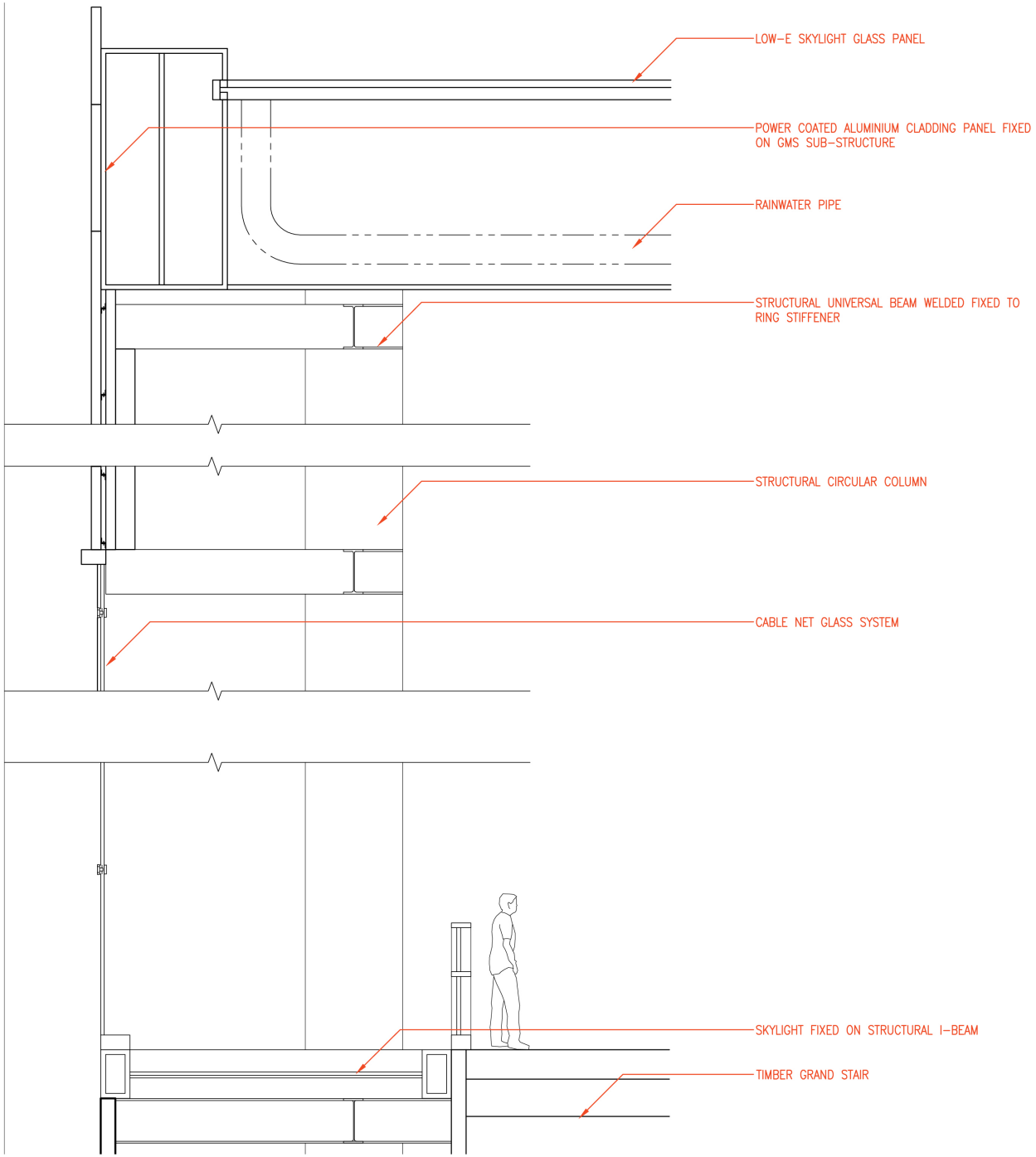




Typical Library Layout Plan



Double Facade System



North-West Facade


stick it.
Mezzanine Stall
Mixed Seating
Pop-up Event
Sculpture & Water Feature
Art Installation
Artist Village
Music Festival
Open Seating
Urban Seating
Greenery Seating
Children Playground
Street Workout
EXIT

THANK YOU

SAM WU
+61 0406 362 107 | samwu741@gmail.com