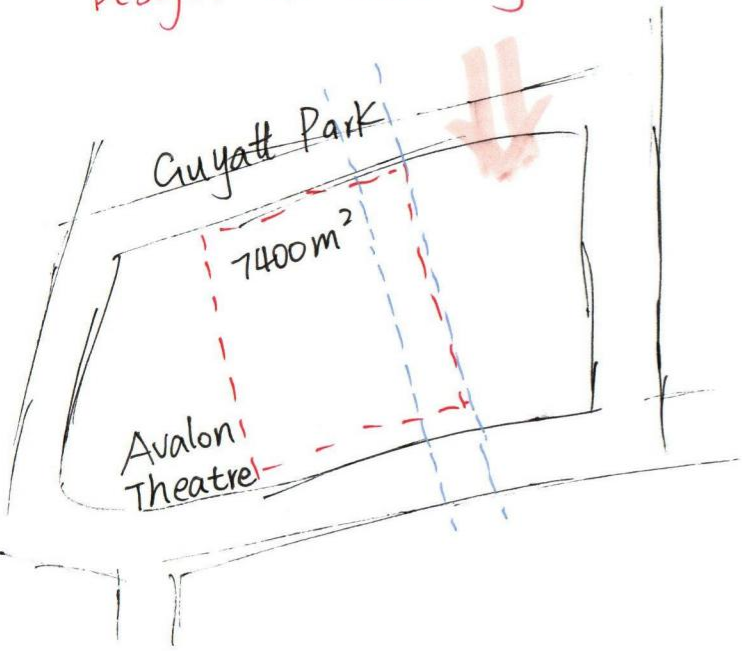


7043 Design Journal WEEK 1

BHC — affordable housing
— support communities and residents

Design on Country



90-120 affordable units

1bm. 2bm. 3bm rental

Lecture: Unaffordability
Homelessness

Urban diagramming 1:1000

Site plan 1:500

Basement plan 1:200

Ground floor plan 1:200

3D block plan 1:200

PC18

1. Unaffordability

- Rising Property Prices and Rent \$ ↑↑
- Income Disparity (Income level unbalance)

2. Homelessness

- Competitive Rental Market (local and overseas investors)
- Poverty and Homelessness (Economic, unemployment, family issues)

3. Solutions

- Social Housing Programs (Financial aids)
- Housing Assistance
- Homeless Support Services (shelters, employment...)

1. Flood mitigation

2. Build to rent (material, detail...)

3. Avalon Theatre (Connection)

4. Vehicles (1.5m landscape separation)

5. Access (connect Guyatt park)

7043 Design Journal WEEK 1

Density & Diversity Lecture

1. Sustainable Development and Eco-friendly Design
eco material, energy efficiency, waste management
2. High Density Urban Planning
vertical construction
mix-use developments
3. Multifunctional Building Design
commercial, residential, recreational
4. Community Engagement \Rightarrow Needs and Expectations
5. Accessibility and Public Transport.
walk, cycling, public transport.
6. Cultural and Historical Preservation
harmonize and respect

Caroline Lecture

Peddle Thorp

175000 Household on wait list

12175

436000 Social Housing Dwellings

Homeless
People

Tips:

Trees can block the flood

Bedroom with natural light

Keep cost down

care older generation

ventilation but satty (fire doors)

PC18

Llewellyn Lecture

The Urban Compression Model

1. Commodity Market
2. largely developer driven
3. overseas investors
4. no consideration

The Urban Sprawl Model

Design Strategy

Sun & Venti East-West

Access separation of vehicles
and pedestrian

Layering of privacy \Rightarrow Floor plan

15-meter walk to car
community gardening

7043 Design Journal WEEK 2

Urban Interpretation of affordable housing Lecture

Urban Transport Morphology

1850 - 1885 Traditional Walking City

1885 - 1969 Transit City

1950 - 2000 Automobile City

2001 - present Transit Aware Automobile City

GABBA Example Development Area

Initiatives and Future Planning

- Urban Tissue Analysis
- Economic context
- Movement & Access
- Below Ground
- Built Form
- Illustrative structure Plan

Norman Creek Catchment
Subtropical Design in SEQ
JEAYS ST Bowen Hills
Affordable Housing

Traffic Engineering Elements Lecture

Access

- Road Hierarchy
- Access Location
- Access Design

Parking

- Car Parking
- Shared Parking
- Relaxations
- Cycle Parking

servicing

- Types
- Numbers
- Design Docks
- Refuse Requirements

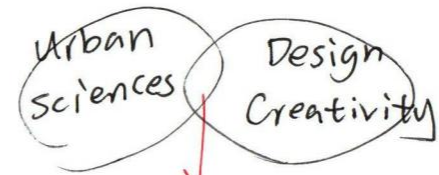
Multiple Dwellings

0.9 spaces per 1 bed	
1.1	2
1.3	3
1.15	visitor

Sustainable precinct design: medium density housing Lecture.

Regenerative

- | | |
|-----------|--------------------|
| 1. planet | urban Overlays |
| 2. people | ⇓ |
| 3. place | Framework of Fixes |



Resiliency Sustainability

Outdoor Thermal Comfort
Urban Heat Island
Risk, Resilience, Adaptation

Carbon / Mobility / Natural-
Based solutions / water

Precinct Design

- North Shading
- Breathe Building
- Sustainable building

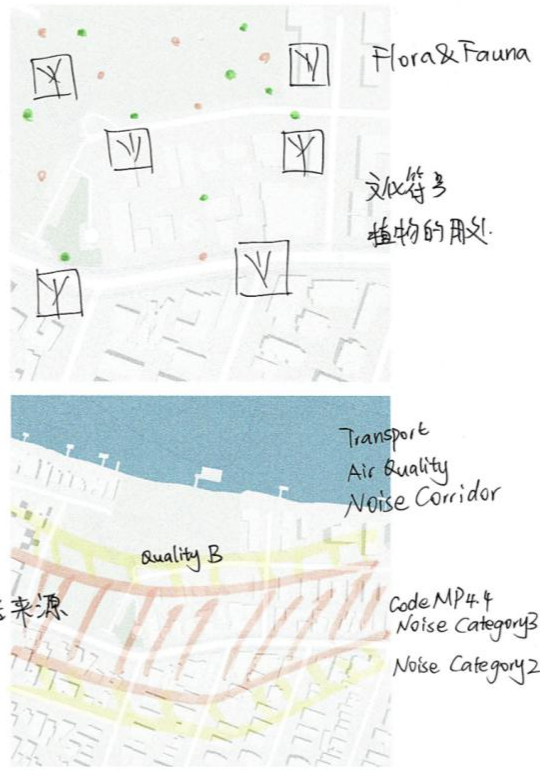
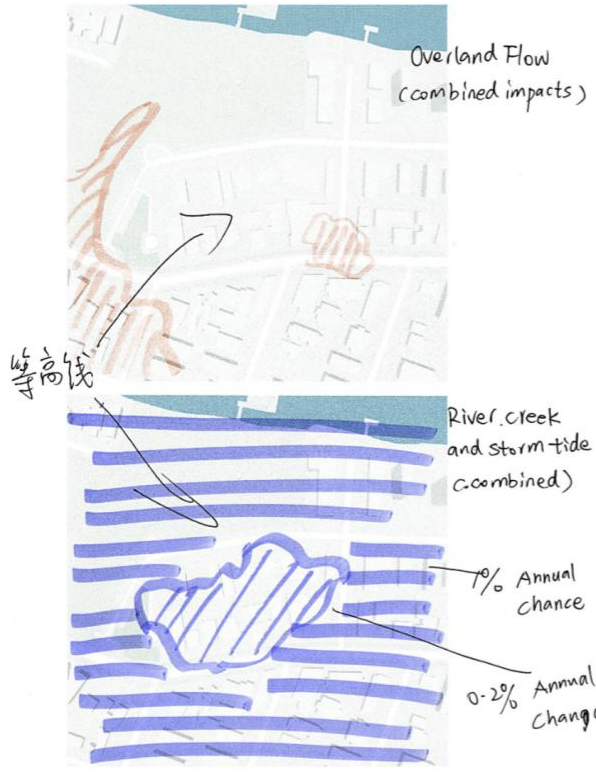
Nightingale Housing Toby Dean

PC18

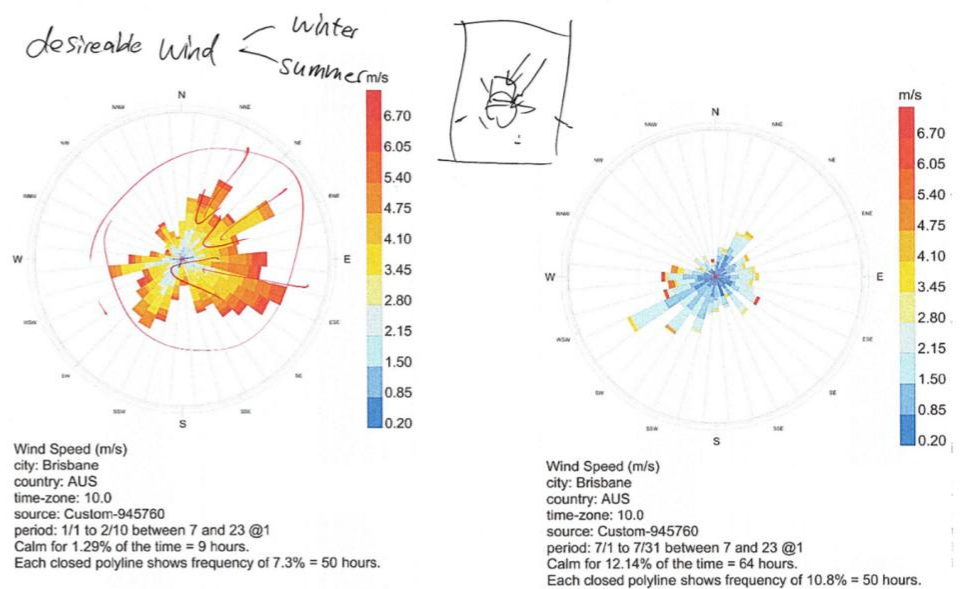
1. Tax reform
2. Planning reform
3. Public land, public housing
4. Support for alternative models
5. First Nations Knowledge

Fieldwork

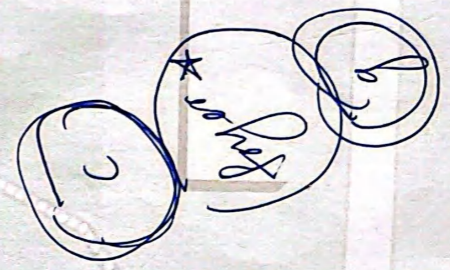
- workshop. = laundry
= bike stand
= dog wash
- stoop => landscape - path
BBQ
Recreation public
gas-free
Double-glazing
Disables - children - pet Friendly



PC26



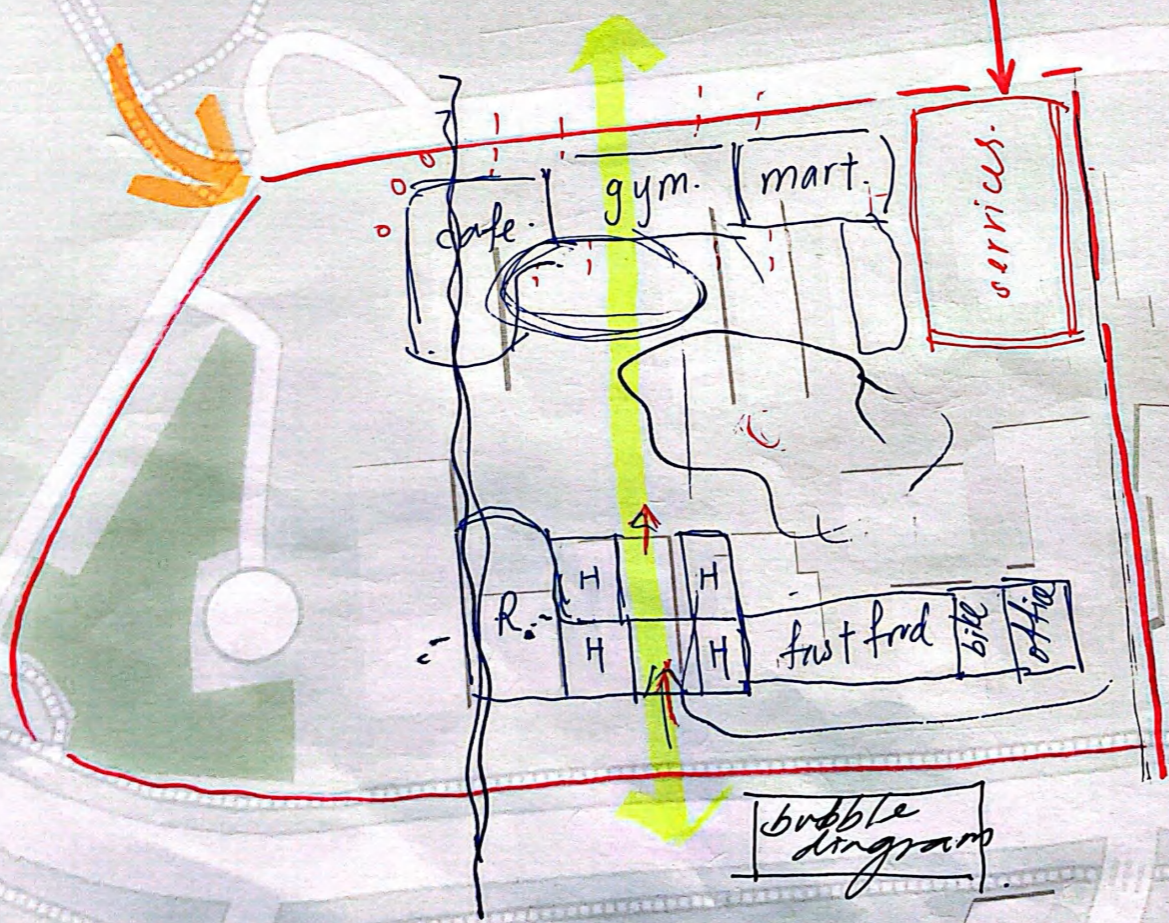
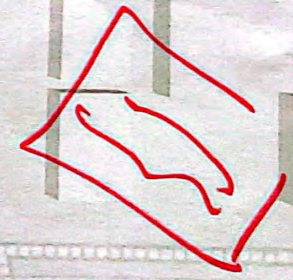
PC26
PC29
PC30



foyer:

car entry.

11.15



bubble diagram

7043 Design Journal WEEK 3

First Nations / Country, Theresa Bower

- Cultural Competency *Basic understanding*
- First Nations Culture & History
- History of colonisation & effects
- connecting to country & deep listening



Cross cultural Engagement ⇒

- Key considerations
- Developing engagement strategy
- Introduction to designing with country as a process

7043 Design



WHY. WHO. How



Research & Contact



- Setting Project Aspirations & Process Reflection

Design Principles

- Governance
- Engagement
- Shared Economic Benefits

Project conception
learn & information
 Project Proposal
set ambition
 Expression of Interest

Business case
Embed in project
 Project management plan

Design Brief & development stages
 Implement & check
 Report & Review of principles based on aims
 from EIO
 Report Back

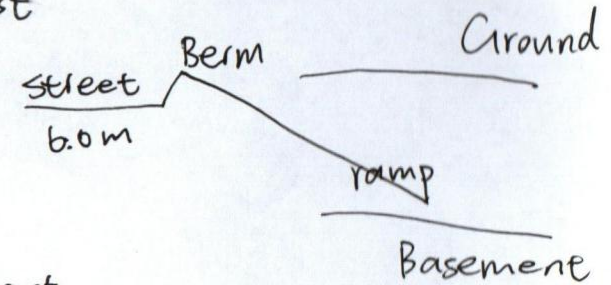
CLT Construction

- Fire protect timber
- a cousties
- pre fabrication

25 Kings structure
 N10A Headquarters office
 M...ey Apartment

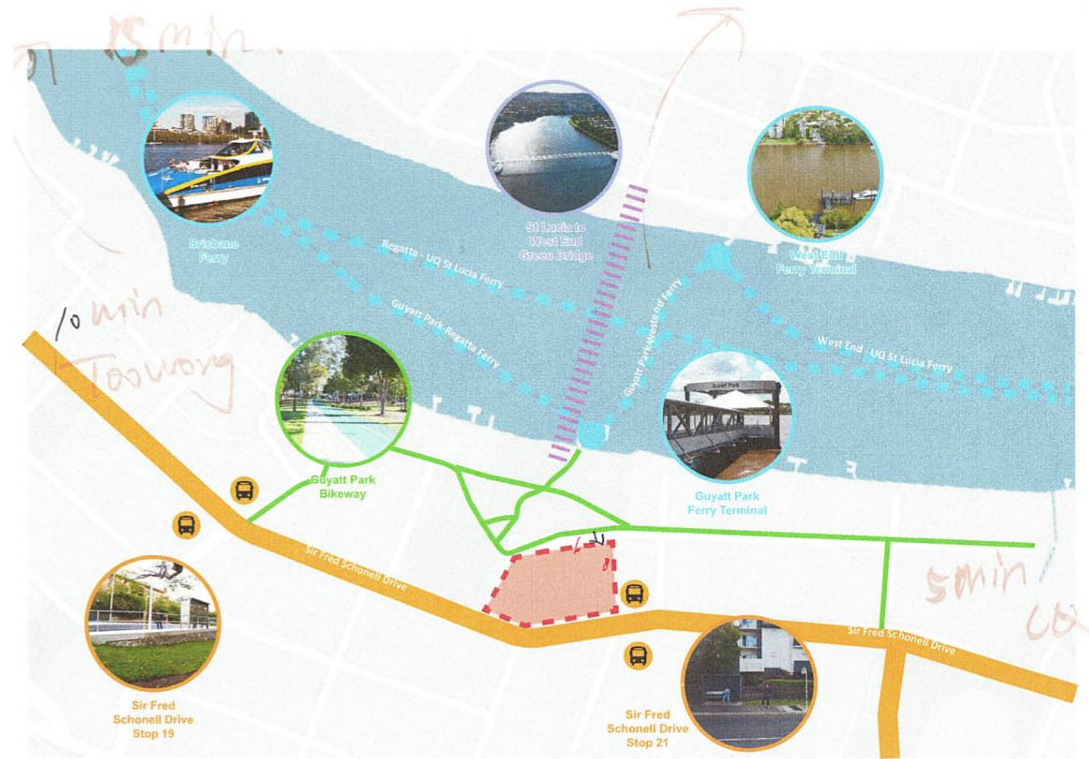
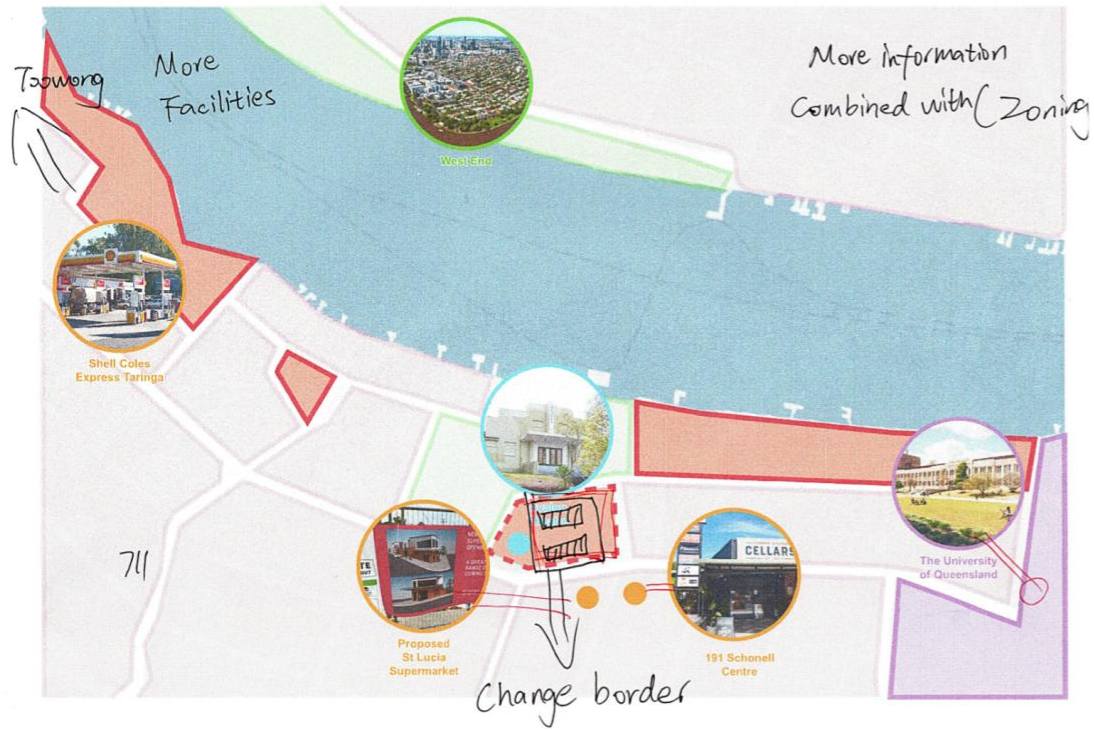
PC18
PC26
PC36

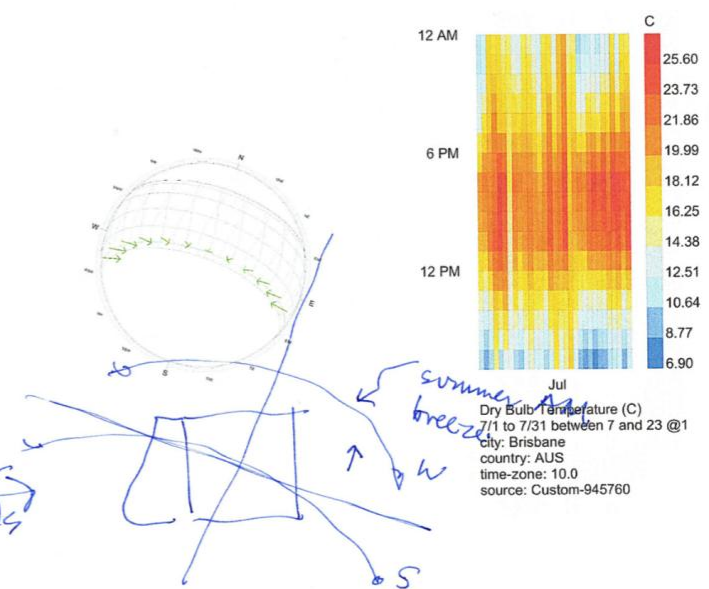
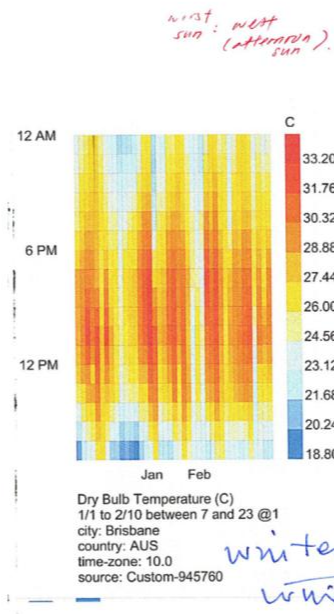
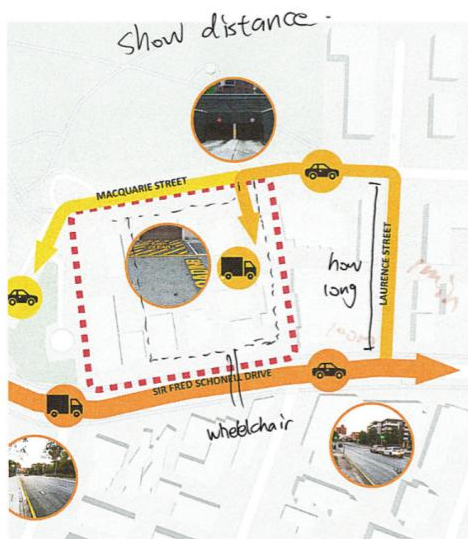
above flood level
 PWD access



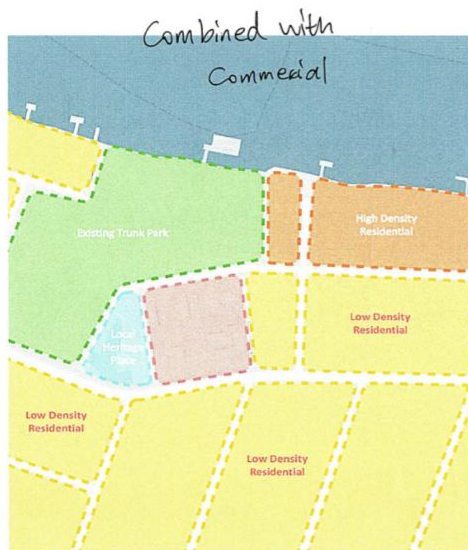
⇓
 suit levels
 ramping ⇓
 flood impacts ⇓

Arkhefield guide
 Applicable code
 Service vehicles





PC26
PC30

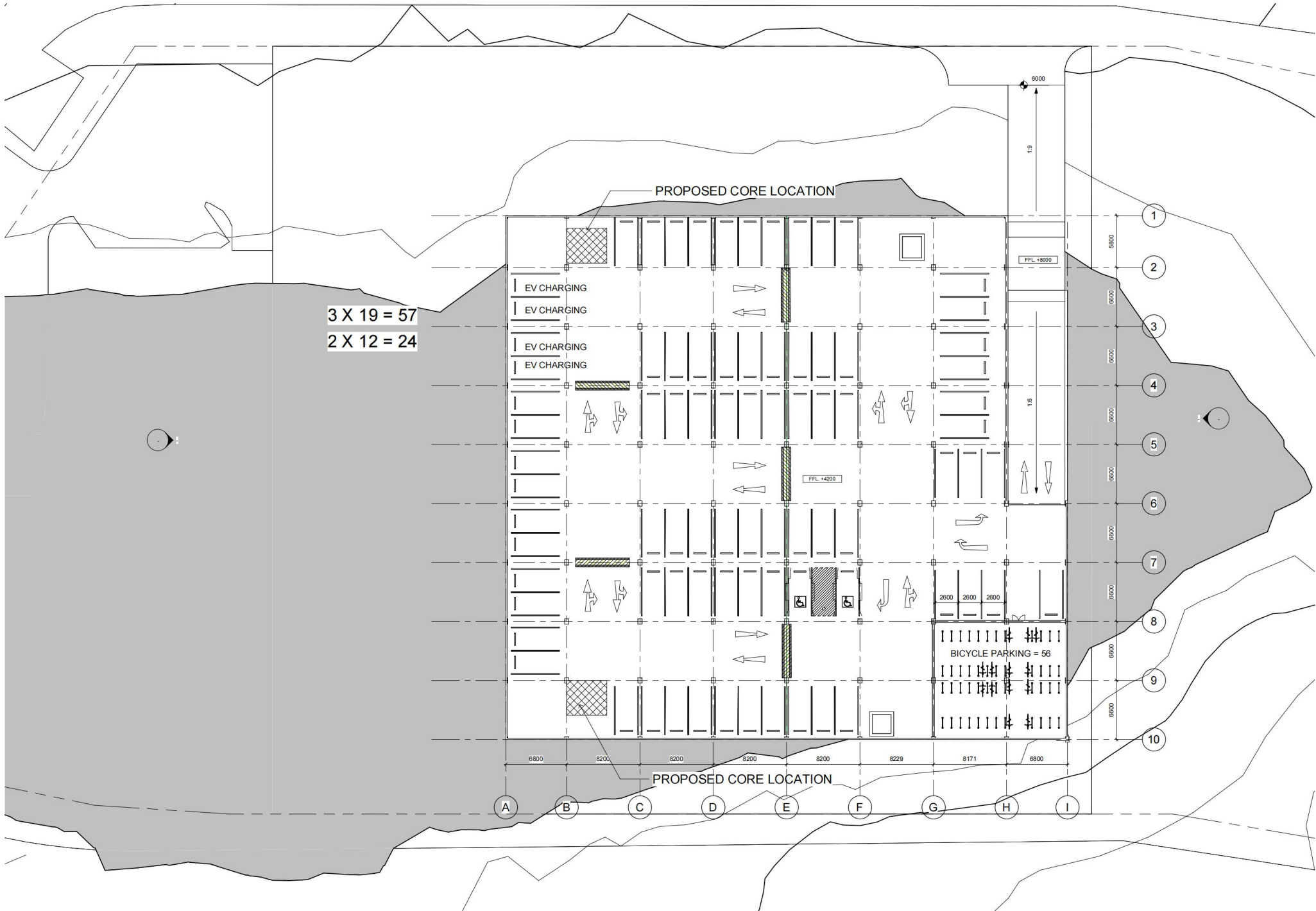


check BCC Map



Flood possibilities

overflow



3 X 19 = 57
2 X 12 = 24

PROPOSED CORE LOCATION

FFL +8000

FFL +4200

2600 2600 2600

BICYCLE PARKING = 56

PROPOSED CORE LOCATION

CAR ENTRY

(Type of)
- entry
- primary
- secondary
- public/private

ramp
5 ft rise
1:20

RL 6.0

RL 8.0

RL 10

RL 6.0

EXISTING
AVALON
THEATRE

RESTAURANT

H H H

STORE

H

BIKE

FOYER

FOYER

7-11

DO

CAFE

FOYER

GYM

OFF

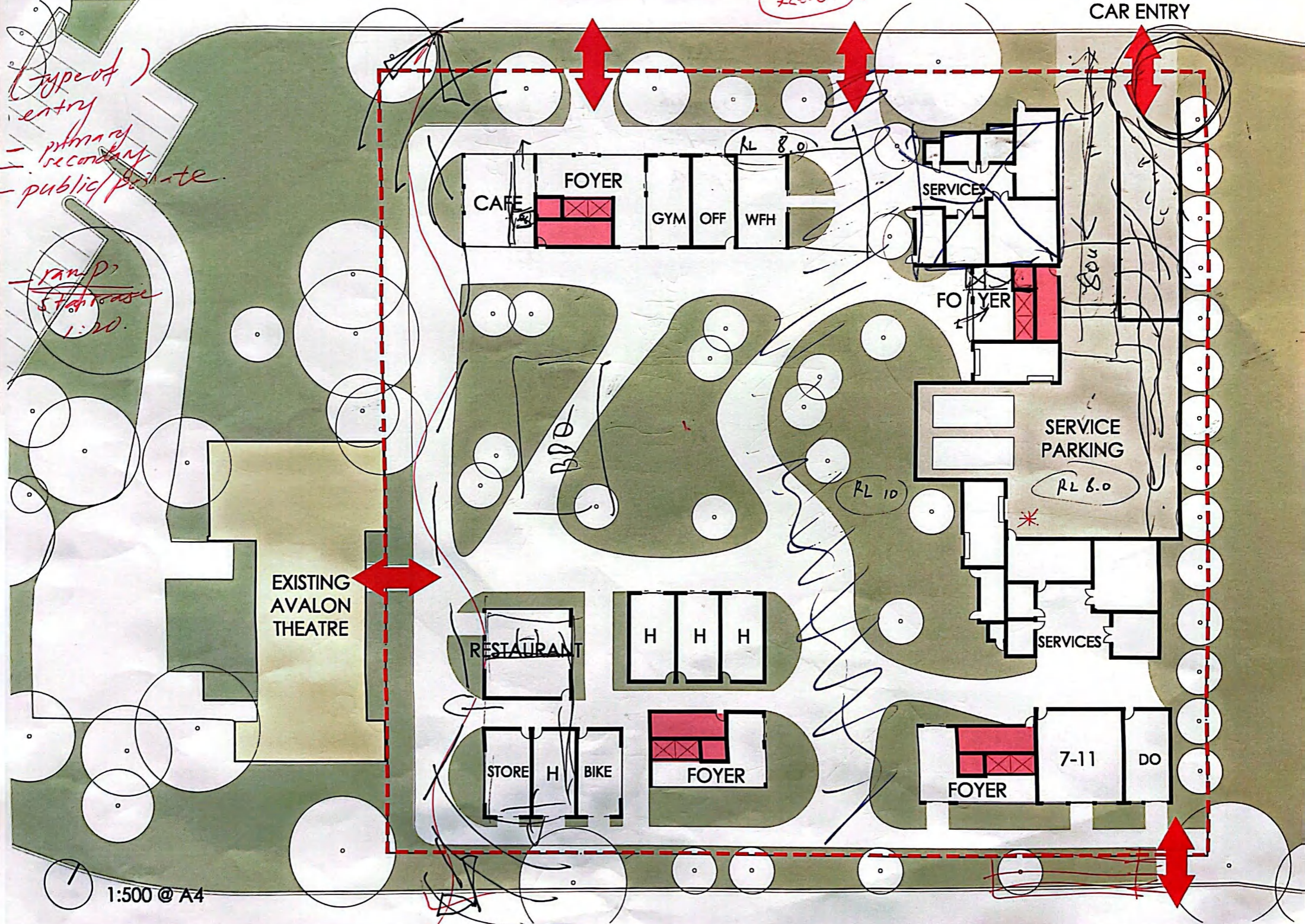
WFH

SERVICES

FOYER

SERVICE
PARKING

SERVICES



7043 Design Journal WEEK 4

PC18
PC26
PC36

First Nations artifactual remains
Heritage Processes



Create a accessible part of the site

Billy Barlow Gubbi Gubbi

Gubbi Gubbi (Kabi. Kabi)

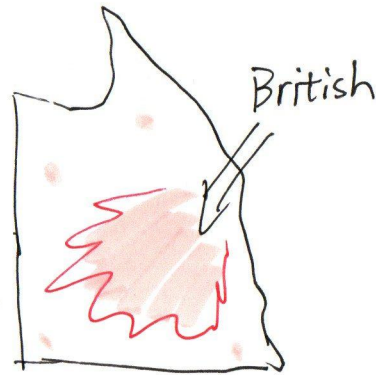
Indigenous Australian Group from
Sunshine Coast and surrounding Qld

His life and Legacy are particularly
noted for his involvement in interactions
between Indigenous Australian and
European settlers during mid 19th.

Frontier Conflict

Land Dispossession

Cultural Upheaval for Aboriginal
communities.



Billy Barlow
Resilience.
Connection.

Barlow is remembered for his role as mediator and a guide.
Assisting European settlers in navigating the territories of
the Gubbi Gubbi. His knowledge of the land and its pathways,
and abilities to communicate across cultural boundaries,
made him valuable intermediary during turbulent period.

Like many Aboriginal people of his life. Barlow also witnessed
and experienced the severe impact of colonization on his
people, including loss of land, disruption of traditional ways
of life, and spread of diseases.

importance of recognizing and honoring the contributions
and experiences of Aboriginal Australians.

MACQUARIE STREET

RL-6.0

CARPARK ENTRY

Heritage Lane

Logan Rd

Green space under roof?

walking through without outside walls?

10

Shape & location

walking?

consider Landscape

9m?

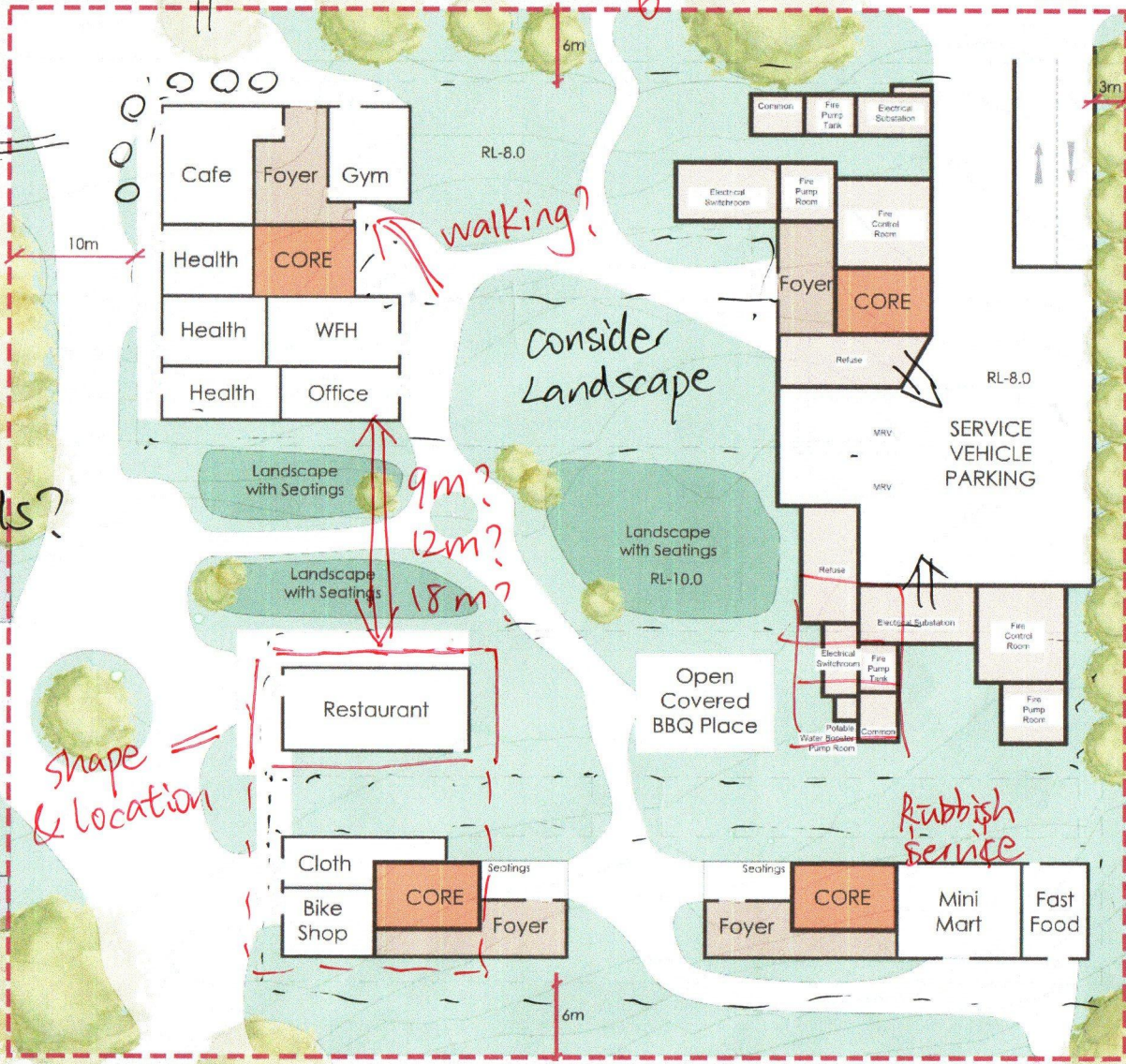
12m?

18m?

Rubbish service

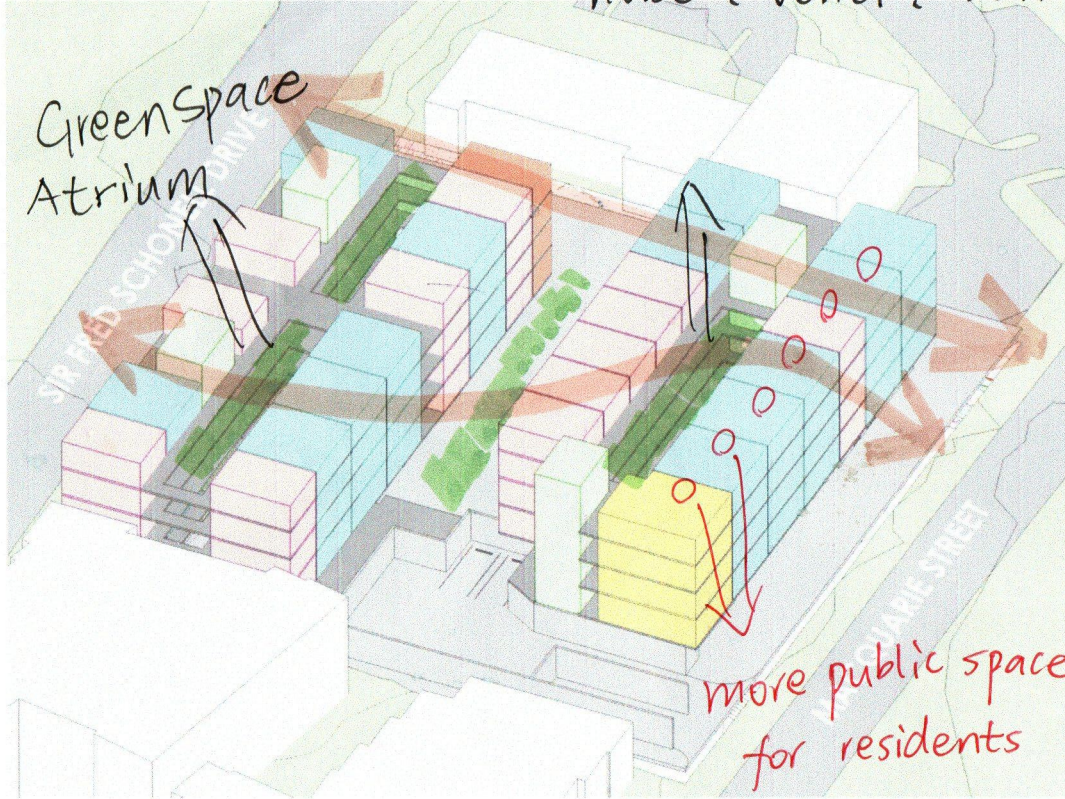
Distance between buildings (9.12.18m) Solar, wind influence

PC26
PC29
PC30



SIR FRED SCHONELL DRIVE

NORTH - EAST AXONOMETRIC VIEW



corridor privacy?
noise? venti? sunlight?

GreenSpace
Atrium

more public space
for residents

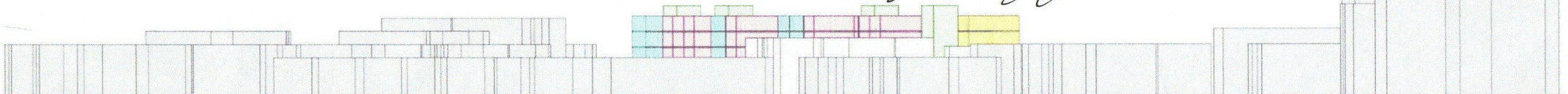
Timber?
Light Steel?
Concrete

PERCENTAGE OF KEY SPACE:

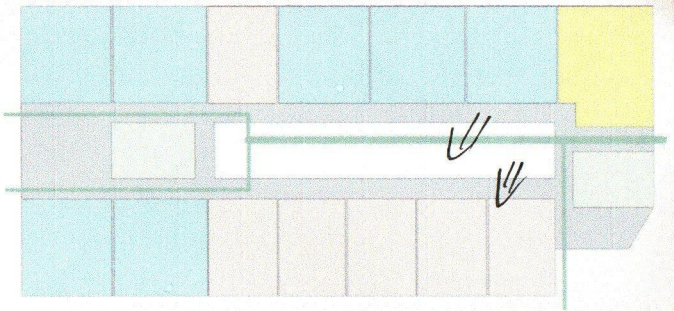
TOTAL ROOM AREA: 8972 M2
TOTAL ROOM NUMBER: 108
ROOM UNIT NUMBER:
STUDIO: 4
1-B-R: 48
2-B-R: 52
3-B-R: 4

ROOM UNIT AREA (BALCONY INCLUDED):
STUDIO: 50 M2
1-B-R: 70 M2
2-B-R: 95 M2
3-B-R: 118 M2

NORTH-SOUTH LONG SECTION



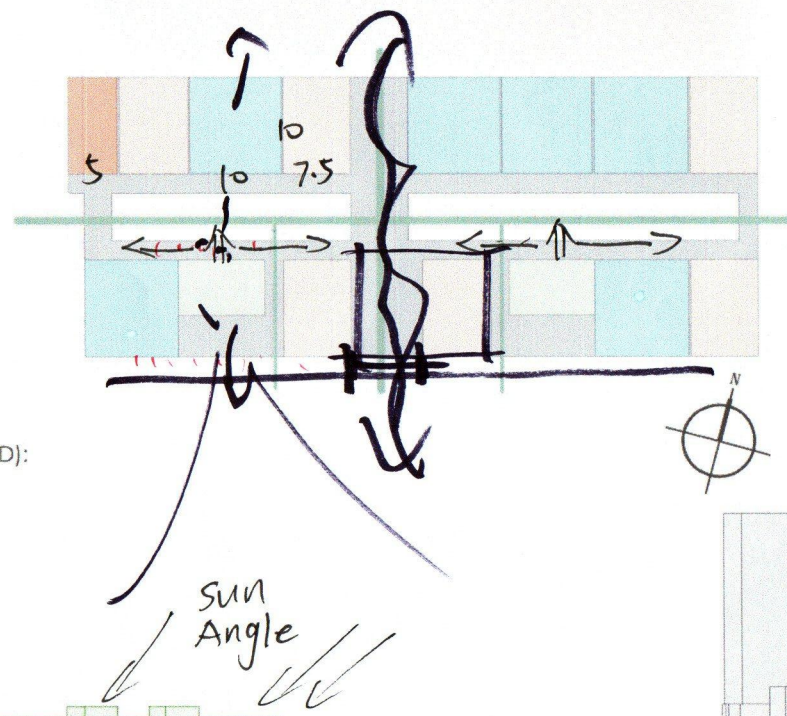
UPPER FLOOR PLAN



NORTH SUNLIGHT



SUMMER WIND



- STUDIO APARTMENT
- ONE BEDROOM APARTMENT
- TWO BEDROOM APARTMENT
- THREE BEDROOM APARTMENT
- BUILDING CORE
- VENTILATION ROUTE

7043 Design Journal WEEK 5

Connection With Country

- Designing with Country Process
- Connecting with
- Country Centered Design
- Listening to country

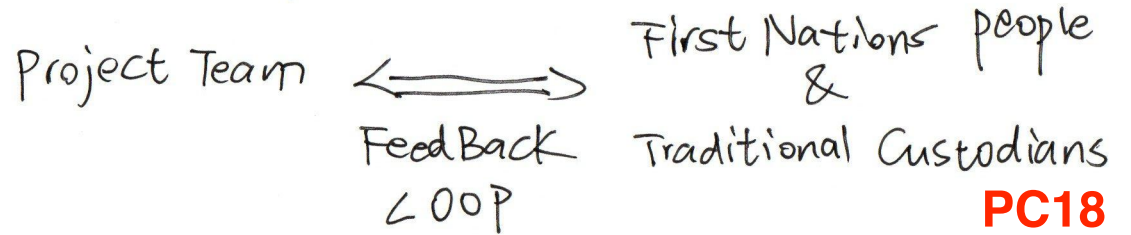
Everyone
⇓

Co-Designing with First Nations people
artists, academics and built environment
professionals

⇓

Co-designing with Traditional Custodians

"Connecting with Country Framework"
Feedback loop with First Nations people and Traditional



PC18
PC26
PC36

Listening To Country

1. History
2. Balance
3. Natural elements
4. Ecology
5. Materials

① Indigenous and Non-Indigenous

② Built and natural elements
Human - Non-human
Tangible and non-tangible.

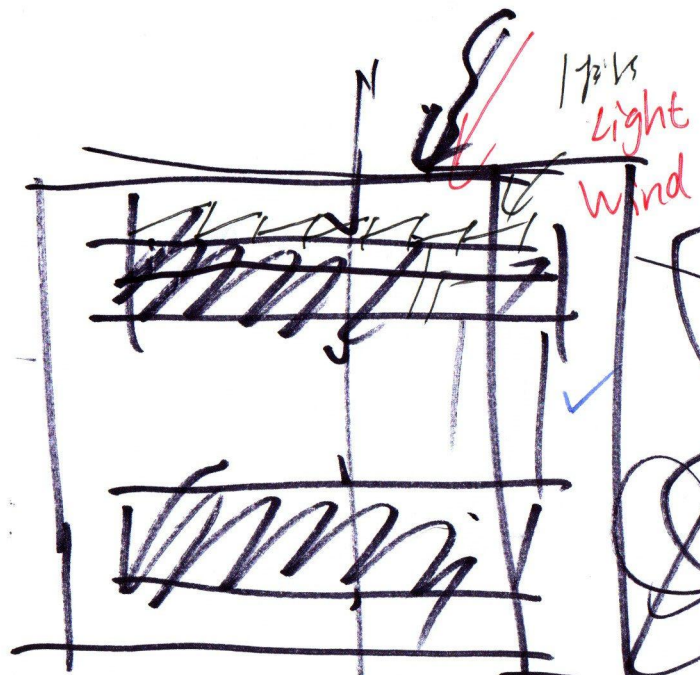
③ Sun. Wind. Water Geology

④ Flora and Fauna

⑤ Natural materials
Colours

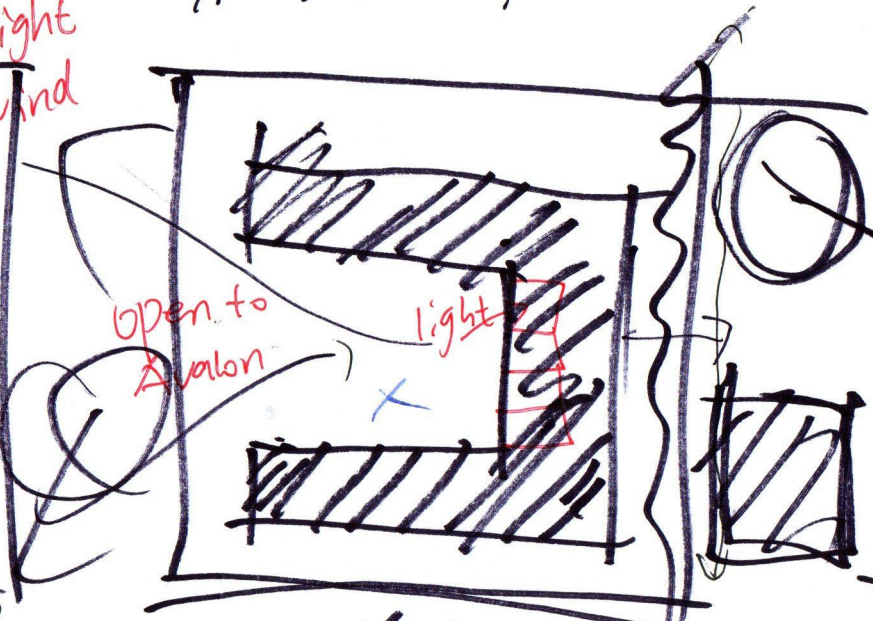
Abundance

Typology Analysis.



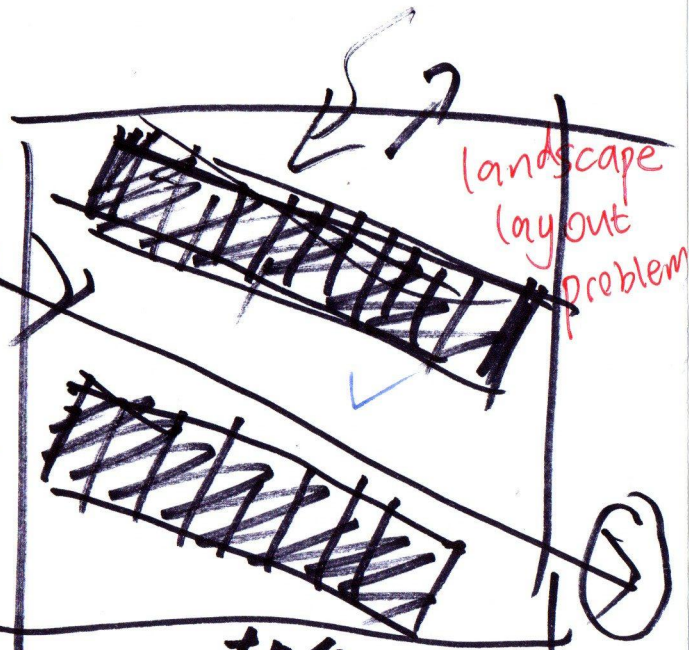
✓ Allow? (1/3) (2/3)

x -



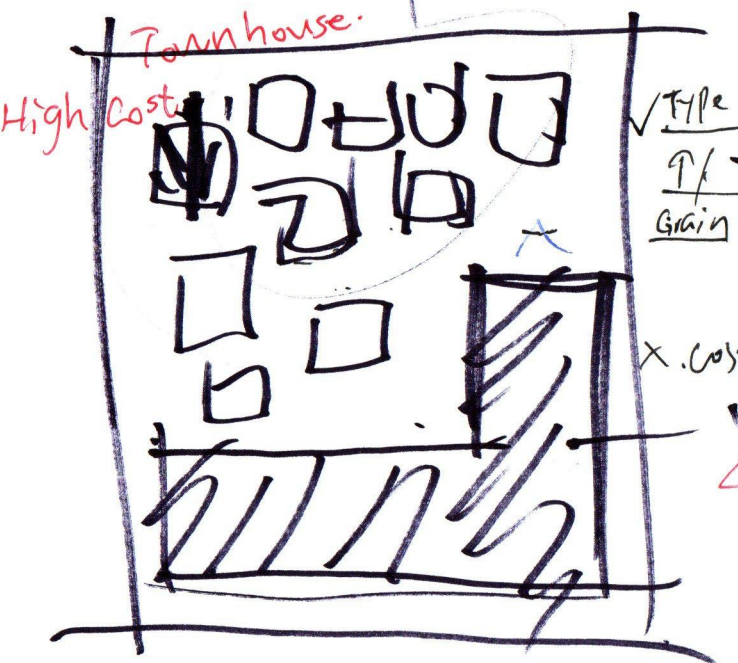
✓ L

x -



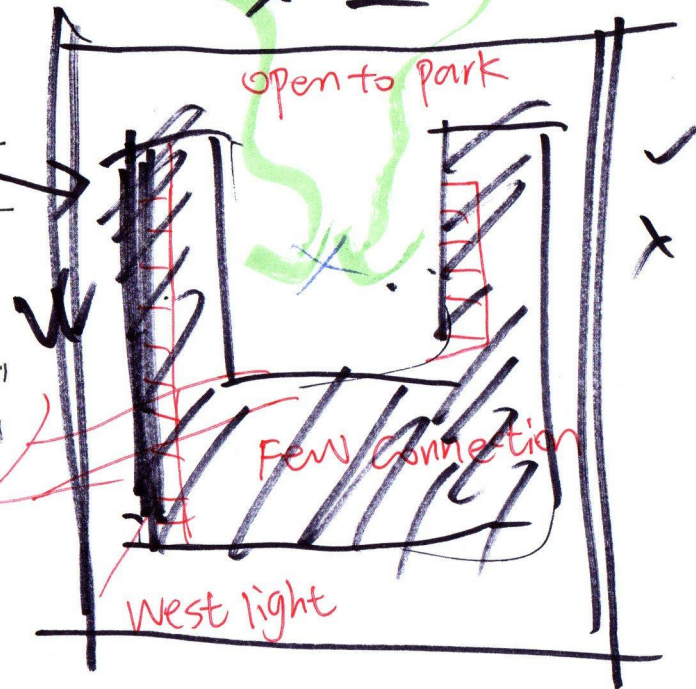
✓ 朝向 -
x 行列, 单元

PC18
PC29
PC30



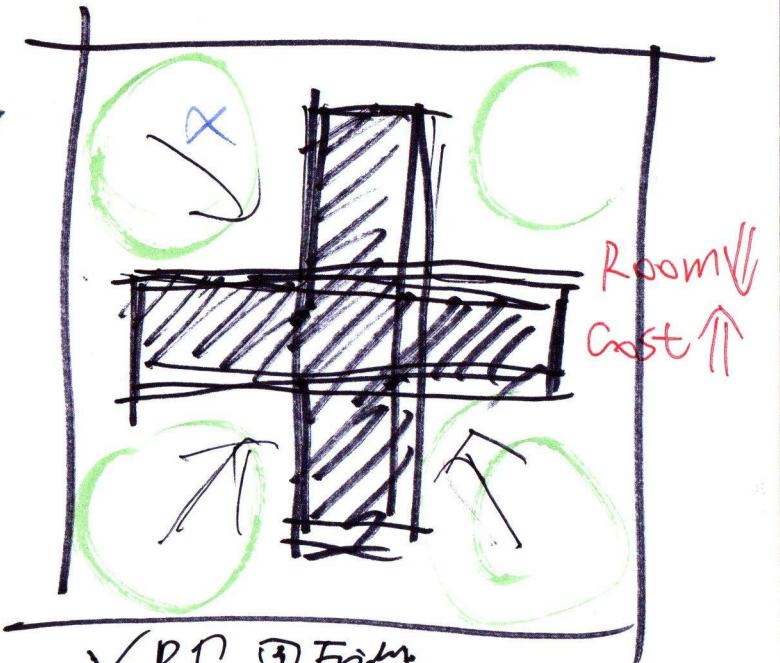
✓ Type
↑
Grain

x Cost

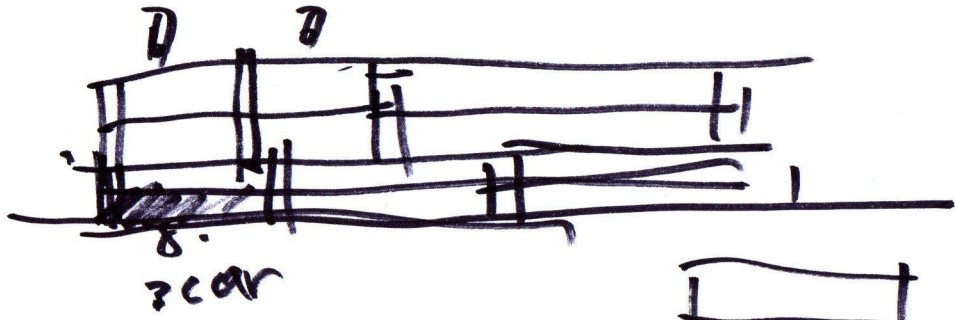


✓

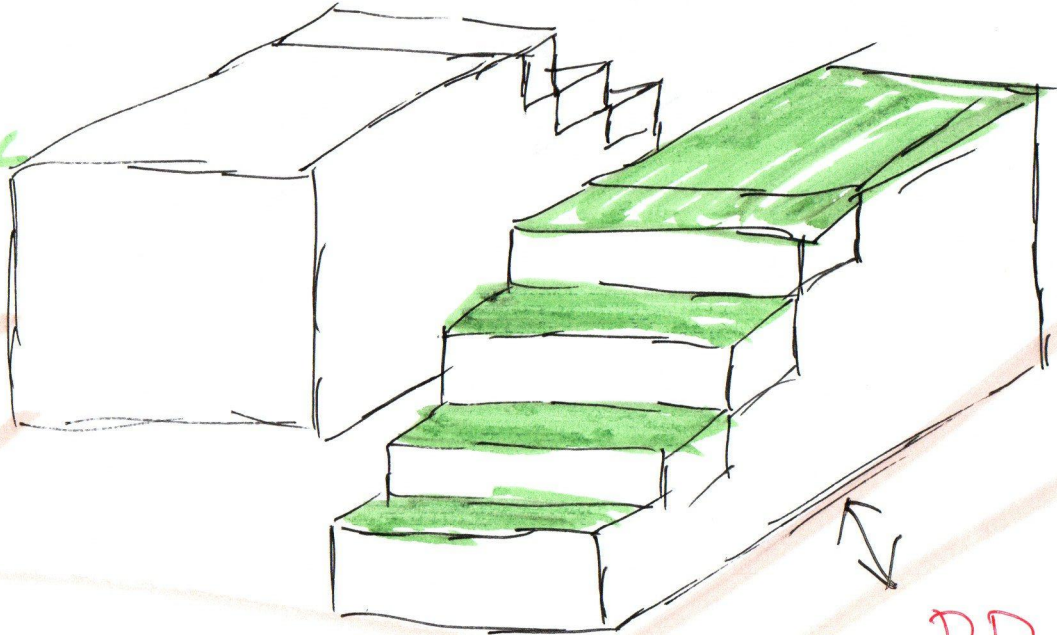
x



✓ P.P. (3) From
x edge ↓, P ↓

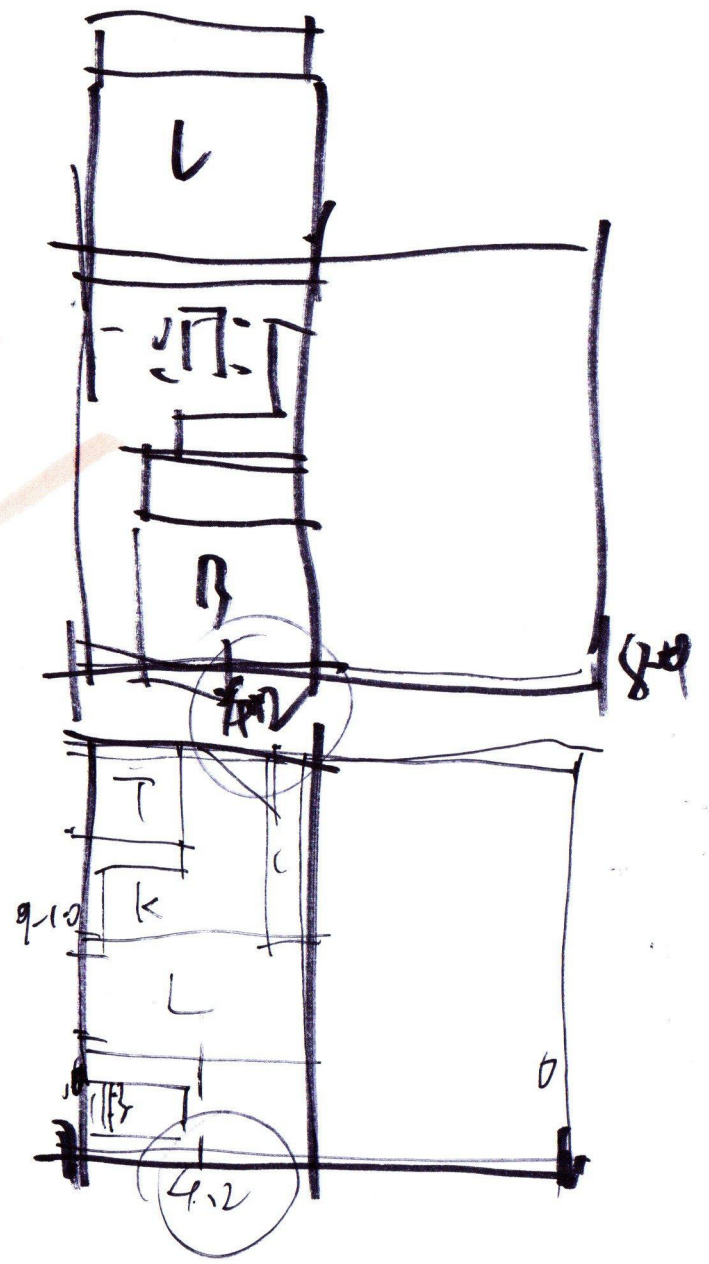


PARK



RD.

Avalone



7043 Design Journal WEEK 6

PC18
PC25
PC36

Projects that Incorporate
Indigenous Knowledge

- Healthcare Buildings
- Agecare Facilities
- Knowledge Centres
- Education Buildings
- Cultural Centres

The work of the Gurriny Yealamucka and Wellbeing Centre exemplifies a holistic approach to health that integrates physical, social, and emotional well-being, grounded in the cultural practices and knowledge of the Yarrabah community. Through its services and programs, the Centre not only addresses

The Puntu Kurnu Aboriginal Medical Services Healthcare Hub

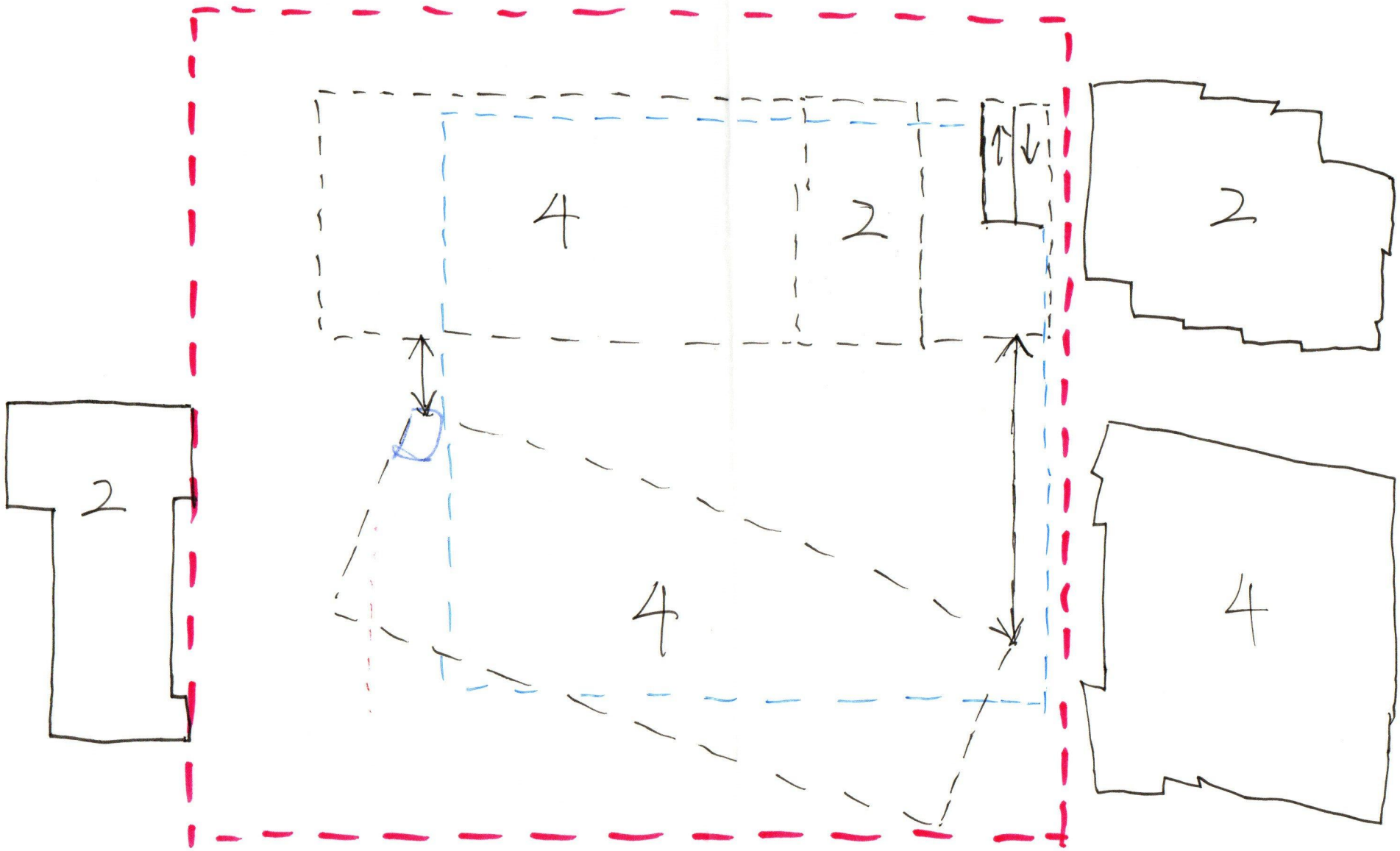
This is a landmark project that integrates Indigenous Knowledge and Australian Aboriginal culture into its architectural and operational framework. This primary healthcare facility is noteworthy for its deep connection to the community, cultural inclusivity and sustainability.

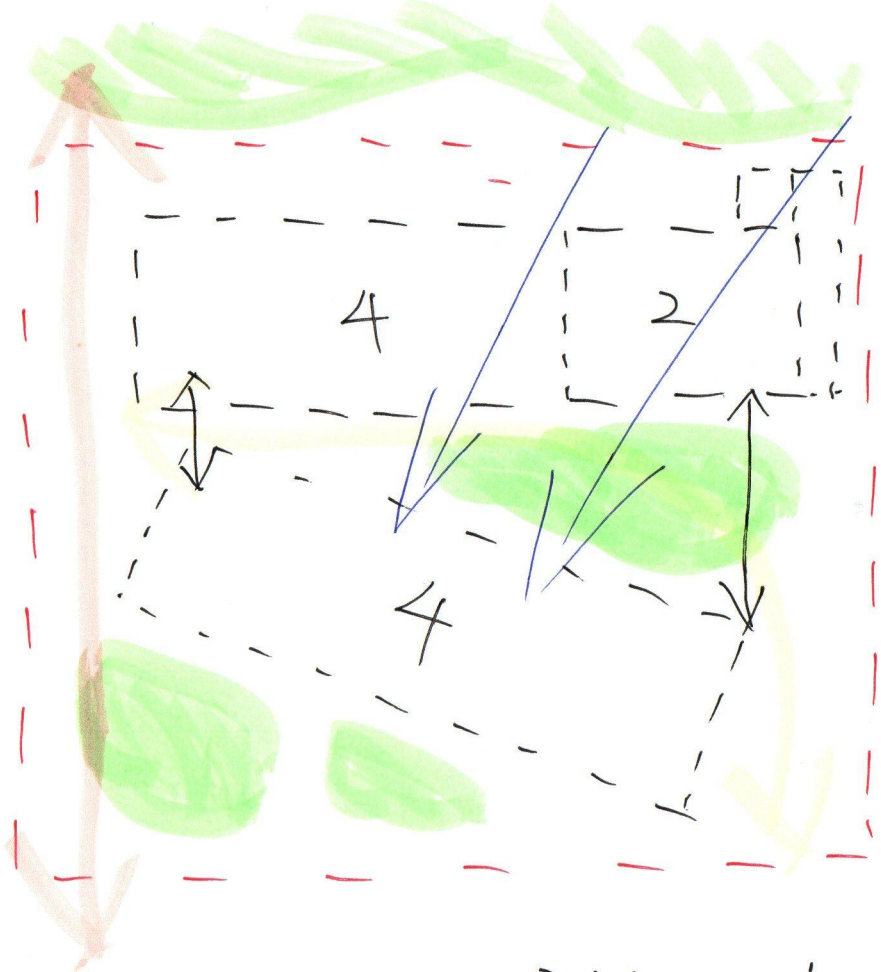
A standout feature of the facility is its use of rammed earth, sourced directly from the site, which not only reduce the building's environmental impact but also creates a visceral connection to the country.

only 2 trees removed for construction
over 2000 local endemic plants used in landscaping

The Gurriny Yealamucka Health Wellbeing Centre

Rooted in the community and cultural heritage of Yarrabah. A First Nations community in Queensland. The name translates to "good healing waters" in the language of the Gunggandji people, symbolizing its commitment to healing and connection with Country.



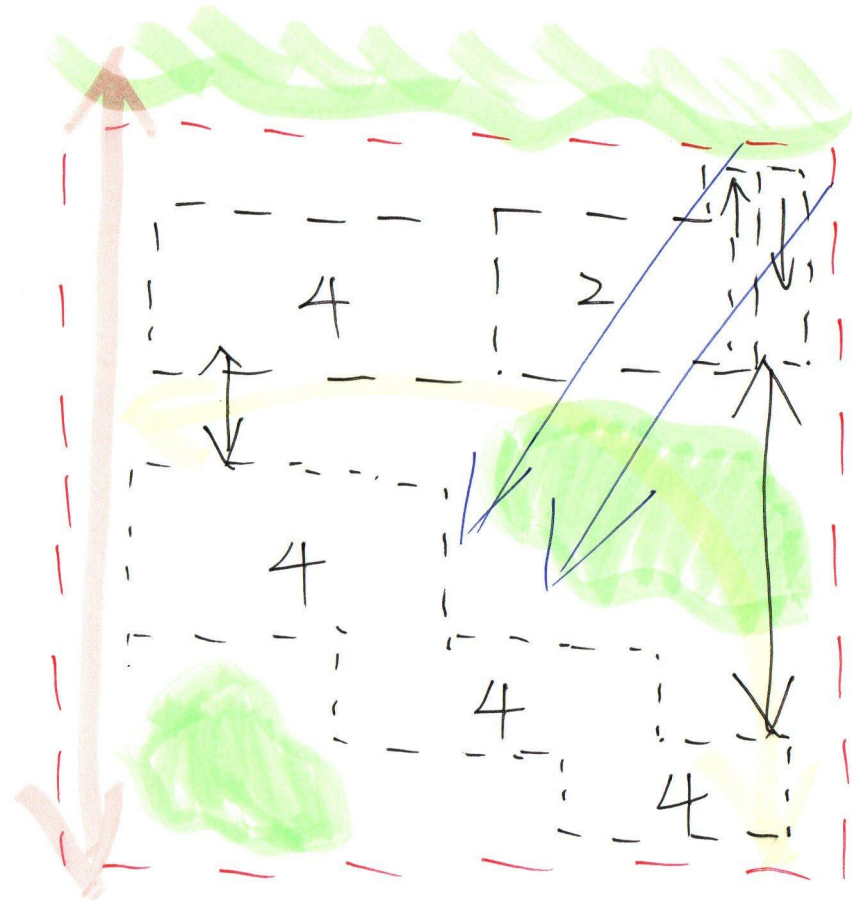


2-4 stories Building 1 face park
 4 stories Building 2 face North

Building Distance < 15m

Separate Public & Private space

Difficult Grid Matching



Larger Building Distance > 15m

Grid Matching with Carpark

- Indigenous Friendly - soil
 - Flood
 - Breeze

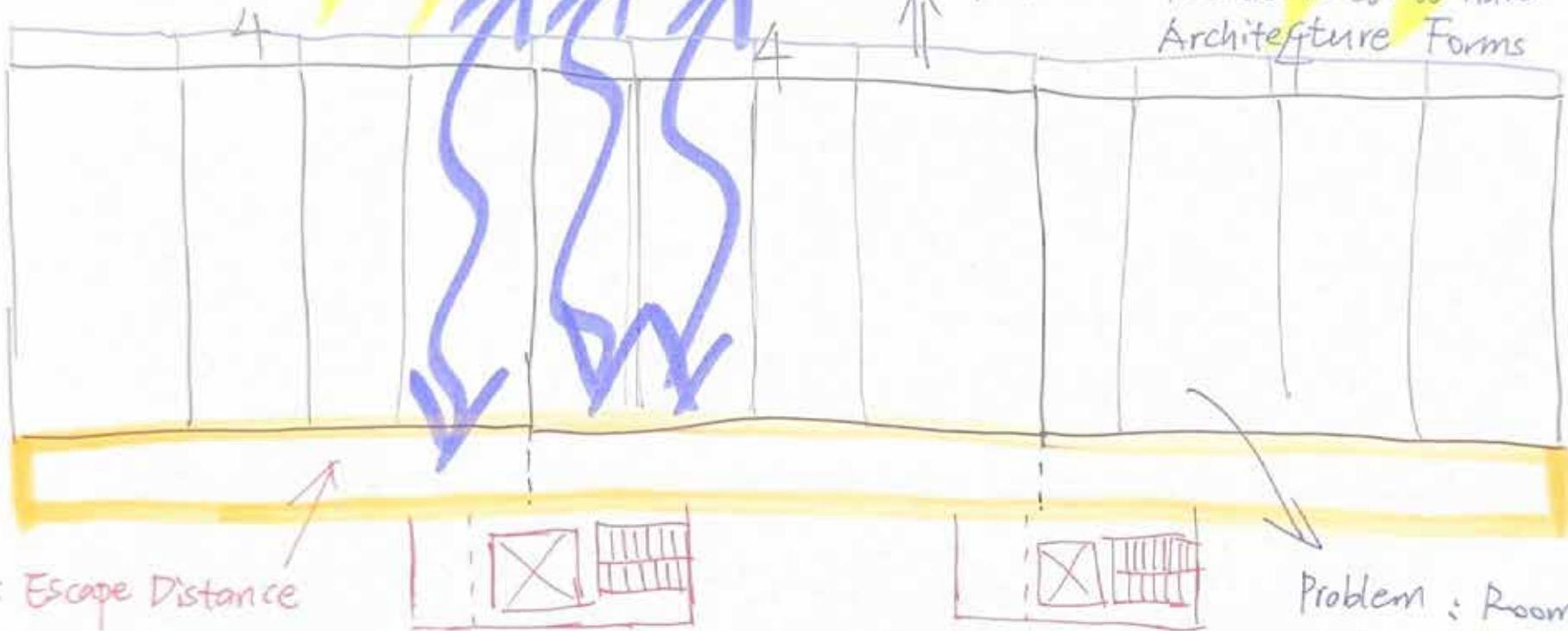
Interaction with Avalon Theatre
 Guyatt Park

South Commercial

Building A

All North Face
Modular Design

Problem: Facade need to have
Architecture Forms



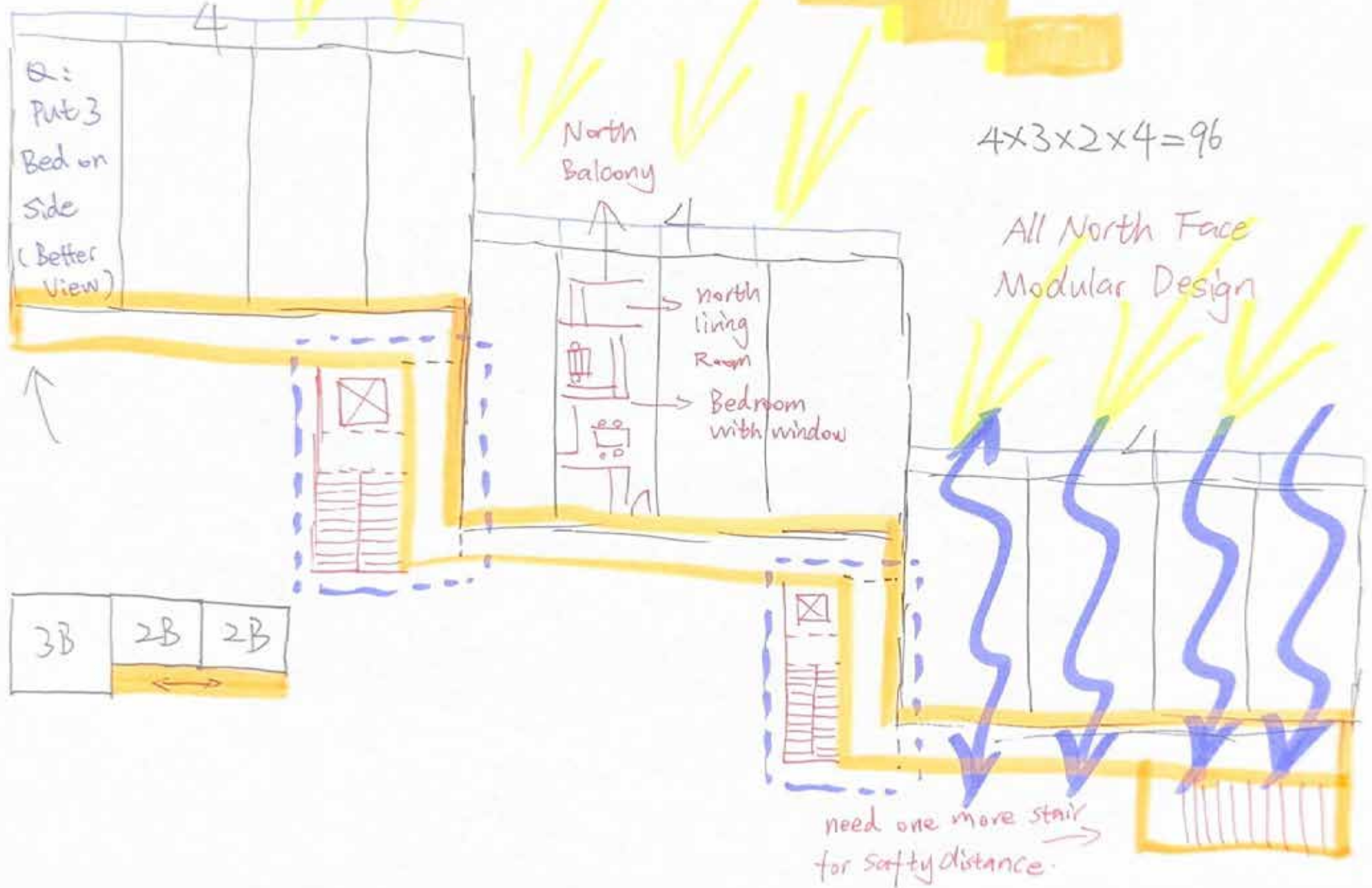
Q: Escape Distance
(12m? 20m?)

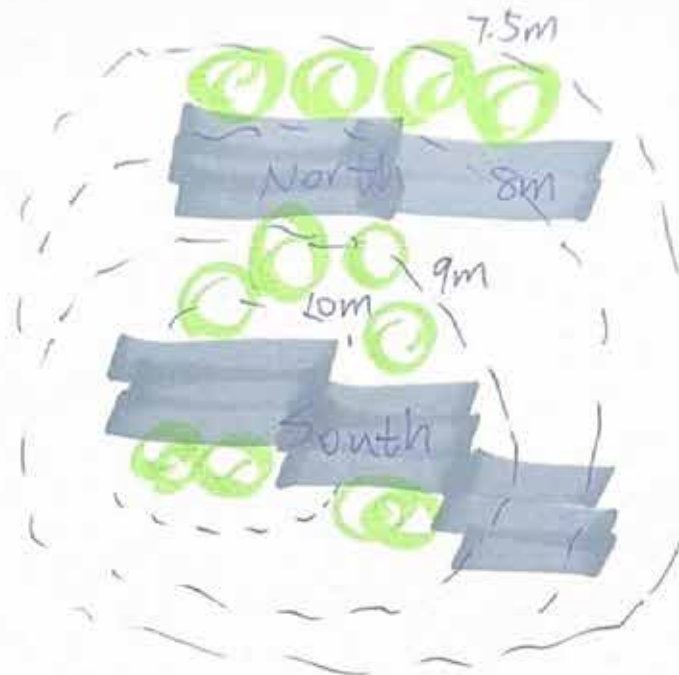
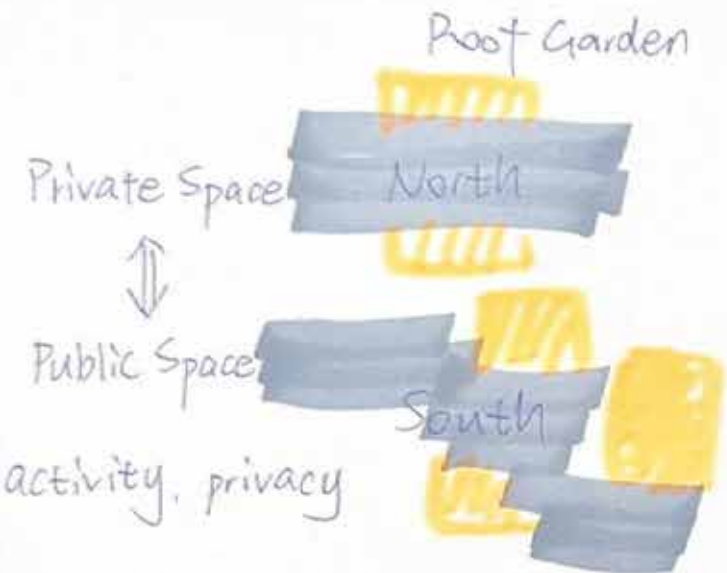
Sprinkler \Rightarrow extant distance
6m - 12m

Problem: Rooms are
too repetitive
Rooms are too close to
breath.

Design Journal WEEK

Building B

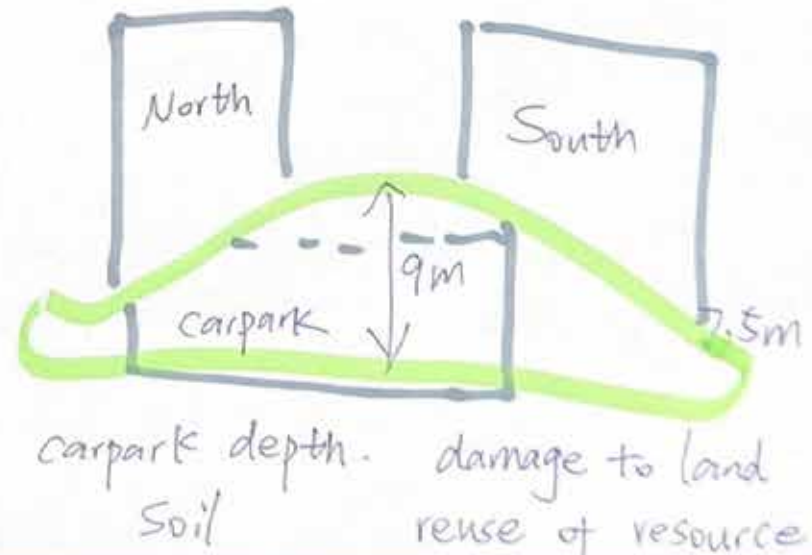
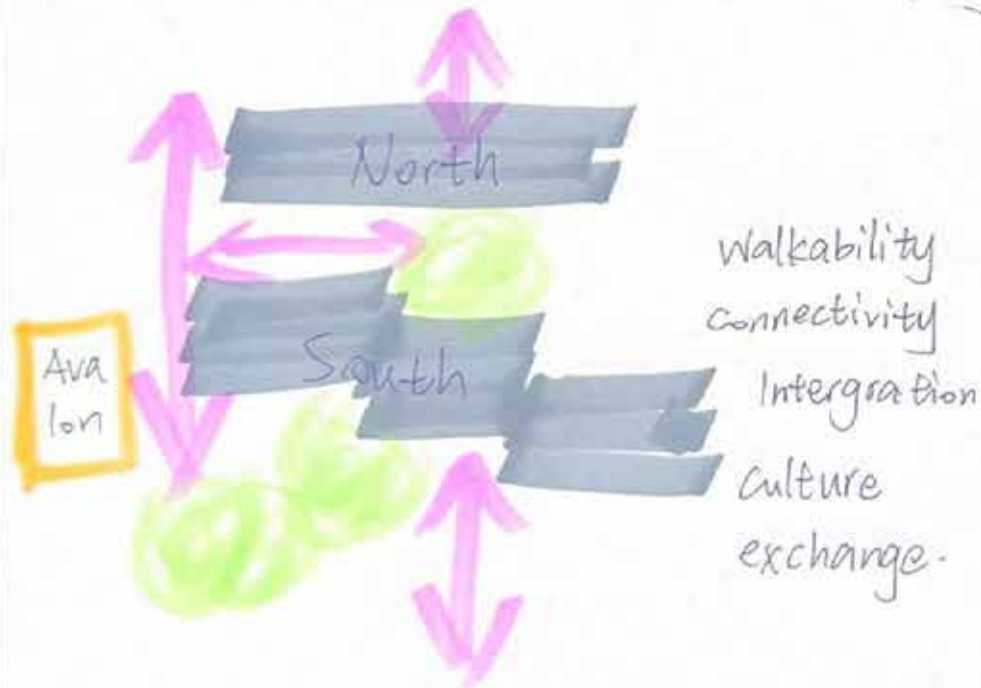




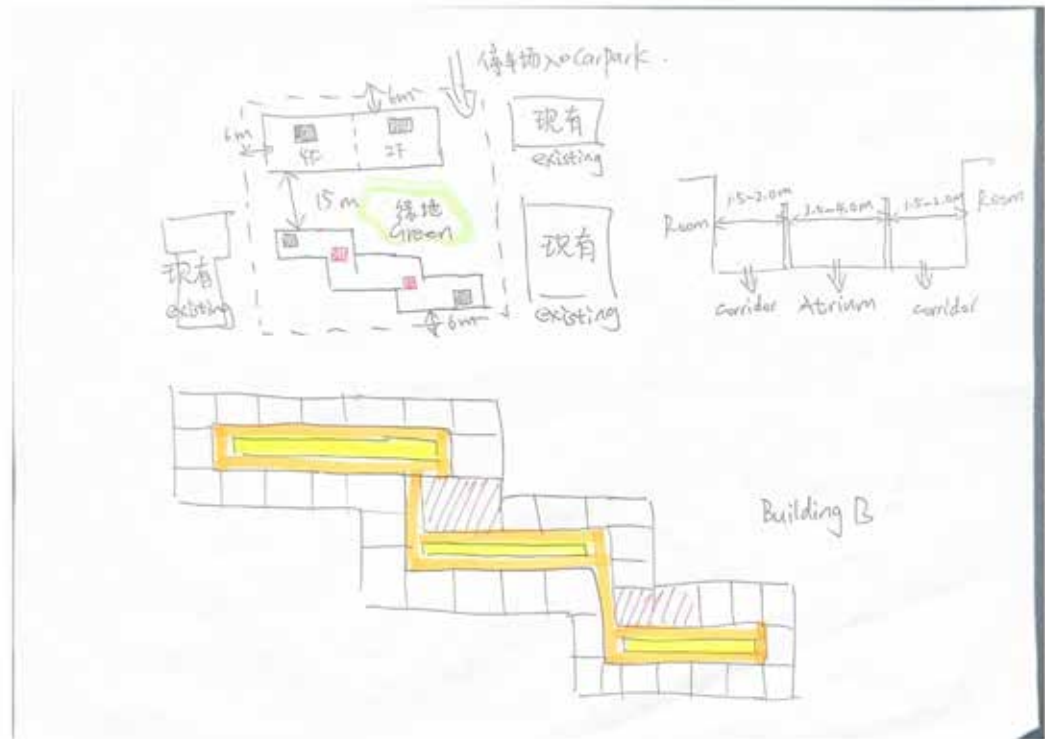
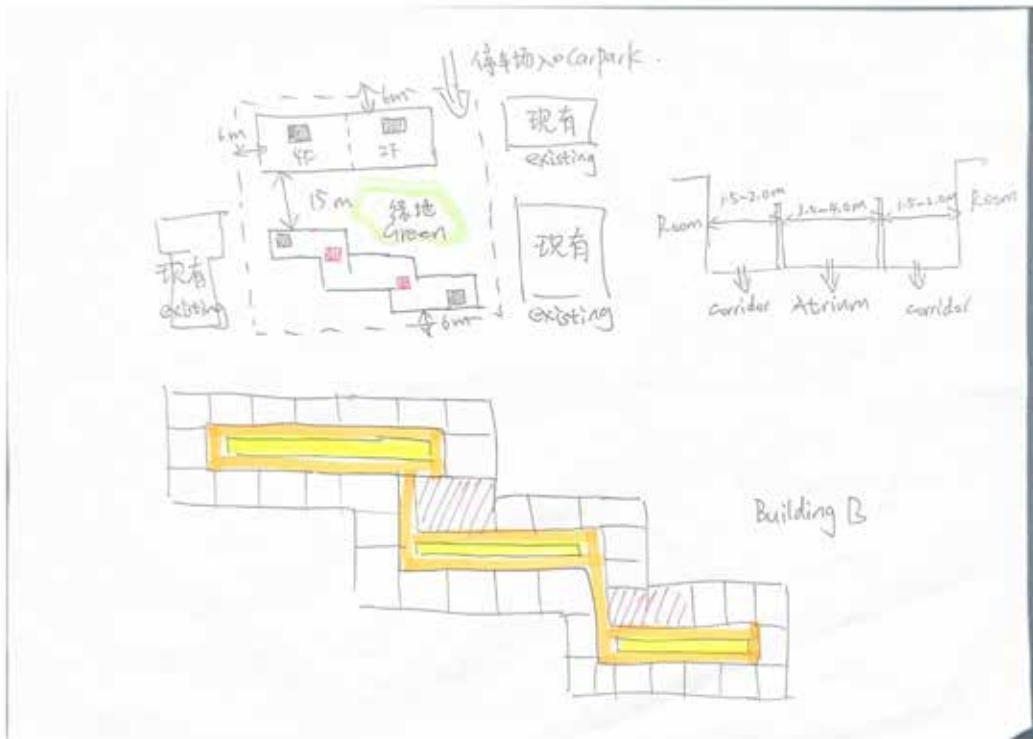
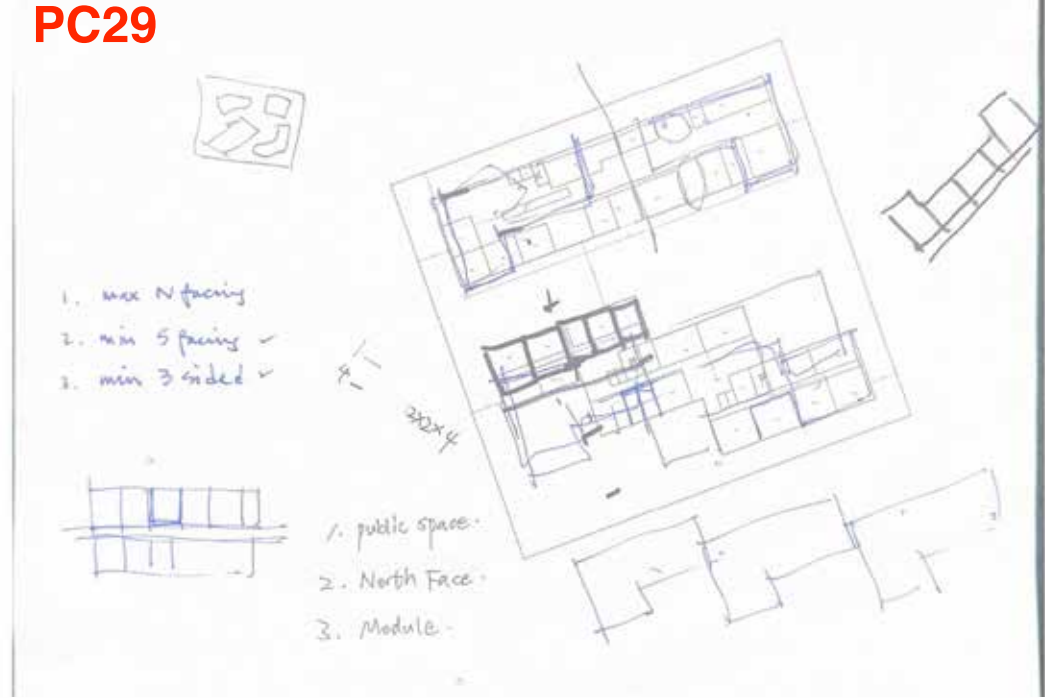
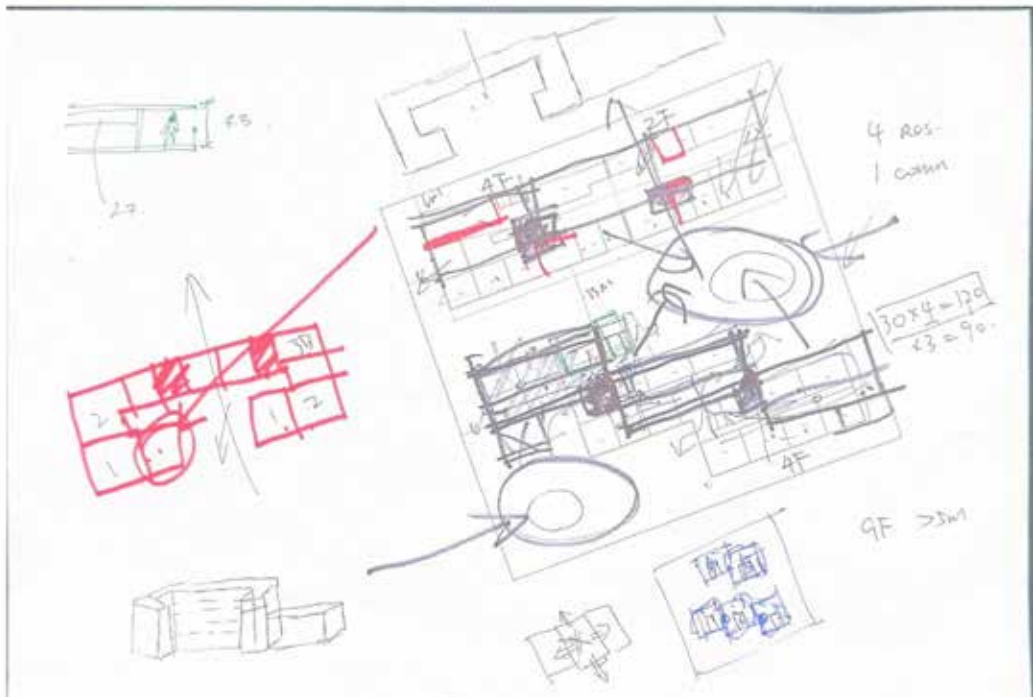
Design on
Country

Flood Saffly
Typology
Deep planting

PC18



PC29



Design Journal WEEK 8

Landscape on medium-rise residential projects and indigenising landscapes

David Uhlmann

Liveability

- Healthy and Active Living
- Community Development
- Sustainable Buildings
- Culture, Heritage and Identity
- Walkable Access to Amenities
- Access to Fresh Food
- Safe places

Good Development

- Design Merit
- Community Dividend
- Sustainability
- Innovation

- walkability => walk & bike
- Access to open space => to park
- Access to outdoor recreation => to road

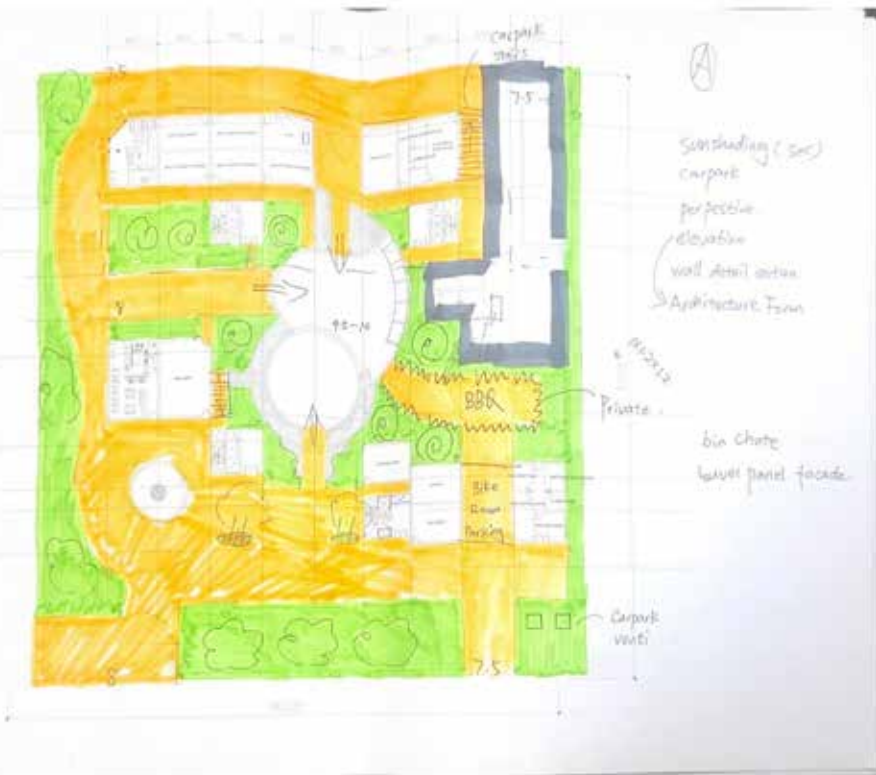
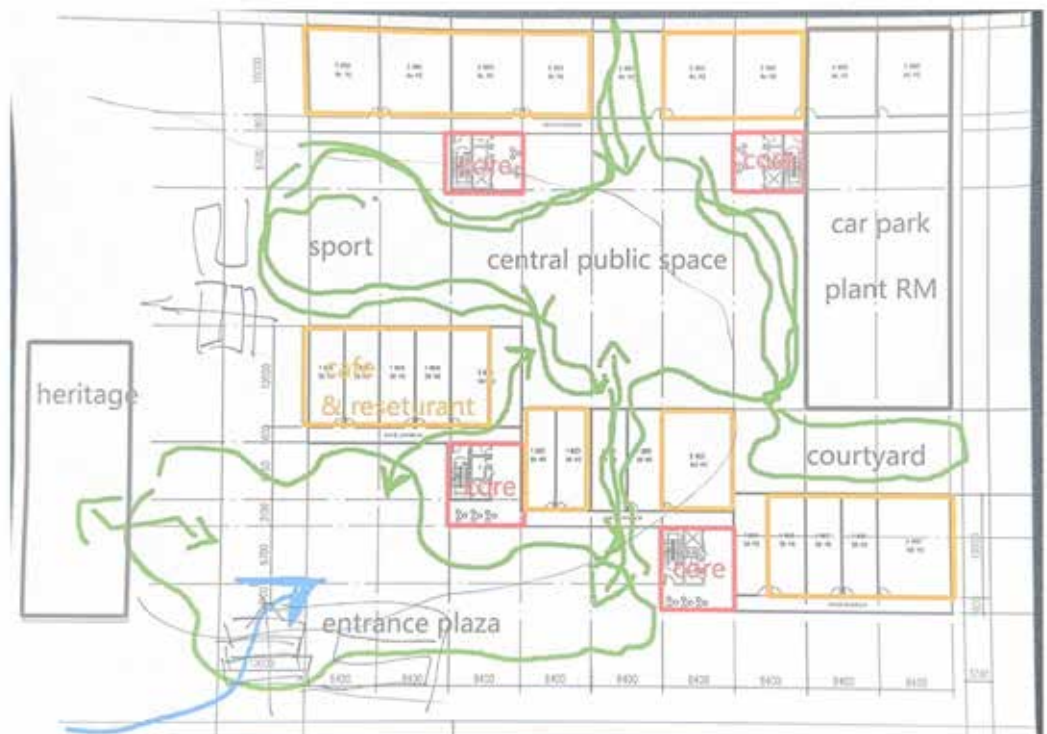
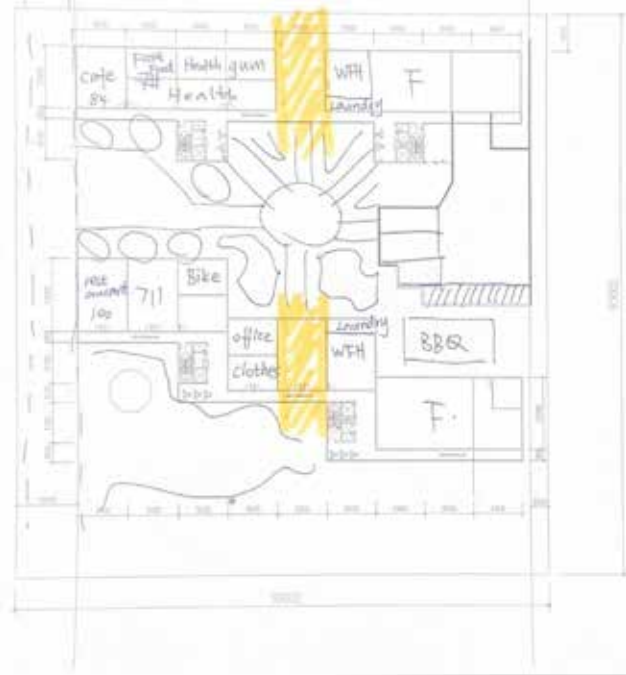
- Green building and the principles have been around for decades.
- Rating schemes and mandated minimum standards.

Affordability vs. Sustainability



Fytogreen Green Wall Systems

- Specialist manufacturer / System design.
- Load biodiversity
- Microclimate
- Irrigation
- Soil Volume
- Maintenance.
- Vertical Forests in Milan
- (Locally endemic species selected and placed according to building's microclimate)





single loaded
venti ↗
sunlight ↗

1. Modular Design
2. Same, Repeated interior
3. All north faced livingroom

↘ Core outside of
Main body



social housing guideline
gold-platinum

Design Journal WEEK 9

PC18
PC28

Energy Water & Sanitation Systems

Malcolm Rae

Building Services \Rightarrow Air . light . communication
water . waste

The building services on a standard project will eat between 25 to 40% of a project budget. up to 50% for an interior fitout or refurbishment.

Consultants \Rightarrow Engineers. Building Services
Engineers (Architect) = (Services)

Team & Communications

- Understanding engineers
- Delivering and selling your vision
- Correct information exchange.

Ceiling Examples : Exposed Ceiling Services in GSI-Steel Building
Basement Plantroom . 3D of plantroom.

Electrical

- Typical Energy Systems
- Sustainable Energy Systems
- Solar Array
- Energy Storage
- Building Energy Control

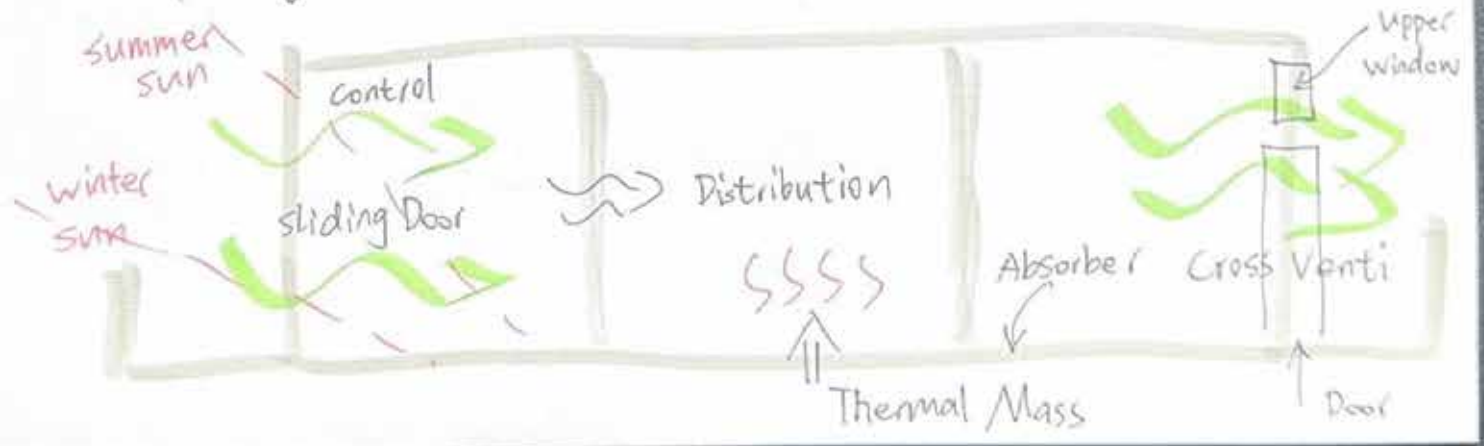
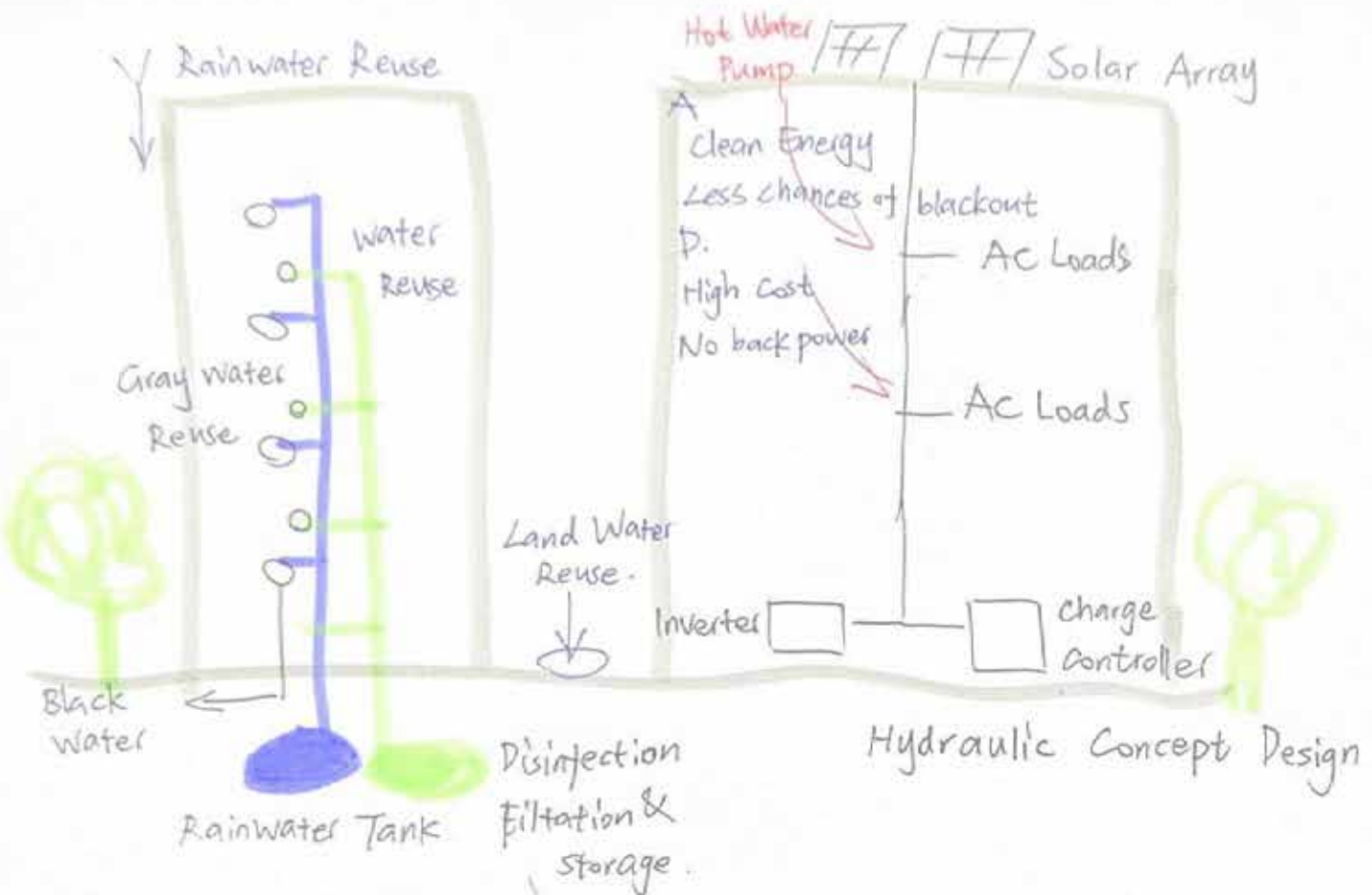
Mains Power

- Local Substation
- Transformer 1100V to 415V
- Main Building Switch-board

- Solar Array
- Wind Turbines
- Co-generation and tri-generation
- Anaerobic Digester
- Life Regeneration

Hydraulic

- Typical Hydraulic Systems
- Sustainable Hydraulic Systems



GROUND FLOOR PLAN
1:200

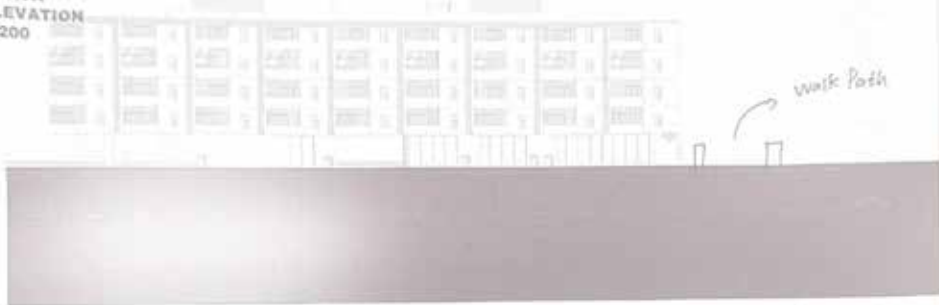


BASEMENT
CARPARK PLAN
1:200

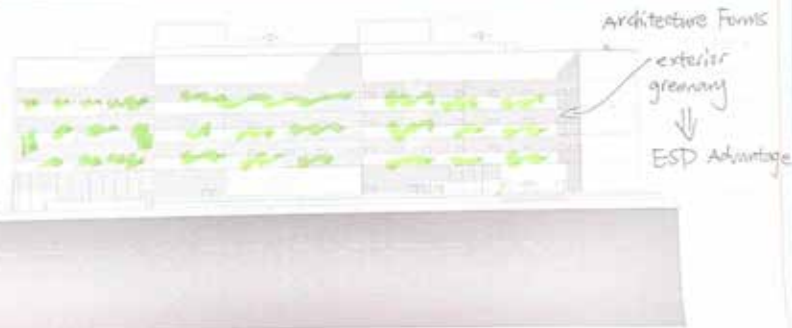


RESIDENTS: 31
VISITOR: 26
ELECTRIC: 4
PARK: 2
RETAIL: 11
MOTORBIKE: 11
TOTAL: 91

NORTH
ELEVATION
1:200



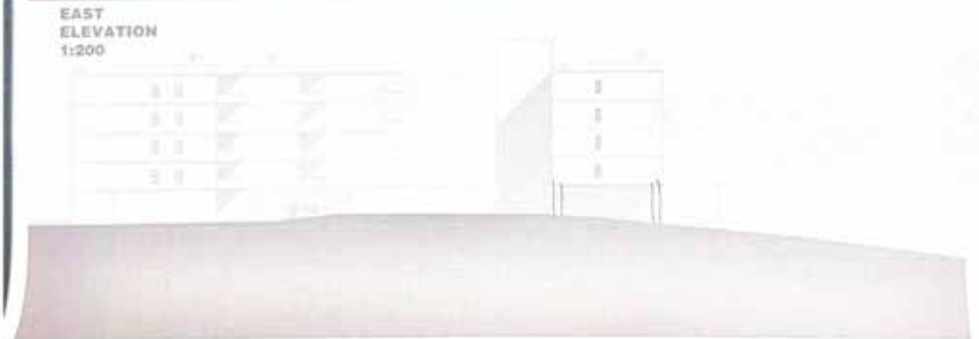
SOUTH
ELEVATION
1:200



WEST
ELEVATION
1:200



EAST
ELEVATION
1:200



Conclusion

The Brisbane St Lucia Affordable Housing project has been an enlightening journey that extended my understanding of sustainable architecture and deepened my appreciation for culturally responsive design. This project has underscored the importance of integrating Environmental Sustainable Design (ESD) principles to not only reduce environmental impact but also enhance the well-being of its residents. Through the application of passive thermal designs, water conservation systems, and energy-efficient technologies, I learned how sustainability can be woven seamlessly into modern urban developments without sacrificing functionality or aesthetic appeal.

Designing on Country has been particularly transformative. It taught me the significance of respecting and incorporating Indigenous knowledge and traditions into architectural practices. Working closely with the local Indigenous communities to integrate their connection to the land into the design was a powerful reminder of the role architecture plays in shaping culturally sensitive spaces. This aspect of the project challenged me to think deeply about how buildings can honor and reflect the histories of their sites while contributing positively to the community's identity and cohesion.

Overall, the project has been a profound professional growth opportunity, enriching my skills in sustainable design and fostering a holistic approach to urban development that I will carry forward in my future architectural endeavors.