

ENGINEERING & TECHNOLOGY PRECINCT (ETP) REDEVELOPMENT – PHASE 1

DESIGN EXCELLENCE REVIEW PANEL (DERP) - MEETING No. 4

31 August 2018, 10.00am – 12.00pm

G12 Services Building, Meeting Room 5

Present	Initial	Position / Role
Juliette Churchill	JC	University of Sydney Campus Planning Manager, Design Excellence Review Panel
Kim Crestani	KC	Order Architects, Design Excellence Review Panel
Tony Caro	TC	Tony Caro Architecture, Design Excellence Review Panel
Prof. Michael Tawa	MT	University of Sydney School of Architecture, Design & Planning Design Excellence Review Panel
Michael Bradburn	MB	Cox Architects
Shohan Sonasundaram	SS	Cox Architects
Ian Cunliffe	IC	LORAC Design Manager
Simon Brown	SBr	T.C.L Landscape Architects
Scott Biggs	SB	Divisional Manager, Infrastructure Delivery
David Watt	DW	Delivery Design Manager
Nigel Grayshon	NG	Design Manager
Laura MacMahon	LM	Secretariat

MINUTES

Welcome Introductions & Apologies JC outlined the purpose of the meeting, to address the 9 points raised in the last DERP meeting reinforced by the Government Architect in the SSDA submission.		
Design Excellence Review Panel Meeting #4		
LORAC/Cox's 75 sheet presentation- DERC #04, dated 31 August 2018 [attached] responded to the DERP #03 meeting outcomes and the State Significant Development Application submissions. Including the following 9 items previously identified by DERC as requiring ongoing design refinement.		
Item	LORAC/ COX Presentation	DERC Comments
1. SW corner at roof and skylight is ambiguous in form and materiality, and clarification required.	<ul style="list-style-type: none"> Refer to sheets 38 to 41. Refinement of roof, skylight, atrium SW corner articulation. Rationalisation and delineation of glass plank cladding to plant room and full height glazing to Atrium. 	<p>Generally acceptable to DERC. Whilst this highly visible area of the scheme has improved since previously reviewed, further rationalisation of the various cladding systems should be investigated to streamline the overall aesthetic form and formal clarity of the building.</p> <p>Concern expressed re: transparency of glass planks cladding to plant</p>

		rooms, better to silhouette plant systems.
2. Further refinement of plantroom, roof and atrium integration required.	<ul style="list-style-type: none"> Refer sheets 38 to 41. Refer to comments on point 1 above. Plant design has become more efficient, therefore takes up less area. 	See above.
3. There are further opportunities to improve the urban edge interface with the public domain	<ul style="list-style-type: none"> Refer to sheets 33 to 35 Improved urban edge to public domain Engineering on display. Opportunity to enhance engineering on display, by making the plant visible. Invite self-directed learning with QR codes on signage. Self-directed learning Better connection with level 2 laboratory. Level of the landscape lowered to optimise view into the high bay laboratory. Demystifying edges. 	Generally acceptable to DERC. Active edges and activity to the Maze Green frontage would be the preferred use if possible. Visibility of the substation is a concern and needs to be appropriately screened with planting.
4. Clarification of northern areas as two distinct 'destinational spaces', rather than being given over too much to circulation	<ul style="list-style-type: none"> Refer to sheets 21 to 32. Constellation of spaces External casual spaces Teaching and Learning Spaces Performance and celebration spaces Culturally safe 	Generally acceptable to DERC. Destinational and circulatory spaces are mediated by curvilinear shapes integrated into the floor, which extend the astronomy patterns of the landscape design into the interior. While this is supported, a less singular, hard-edge line in the paving pattern would be preferable (as incorporated into the existing pathways of Cadigal Green).
5. Variety in scale of gathering spaces to be developed.	<ul style="list-style-type: none"> Refer to sheets 21 to 32. Refer to comments on point 4 above. Softened the hard landscaping by creating destinational landscapes with more lawn space, low walls for seating and gathering, using circular forms for amphitheatre for teaching/study groups/ small events. 	Generally acceptable to DERC. Refer to comment on point 4 above.
6. Further resolution of the atrium is required to investigate simplifying forms.	<ul style="list-style-type: none"> Refer to sheets 50 to 63. New timber lift core shows clear delineation. Continuity for two sides to be one floor plate. Constellation pattern of Sydney sky in June, to be mapped onto plywood with digital technology. 	Generally acceptable to DERC. Engagement with indigenous astronomy is supported. Consider working with the Sydney Observatory to integrate more precisely concepts of indigenous astronomy that emphasise the voids between stars and planets, in contrast to Western astronomy.

<p>7. Further detail required for the mesh to the atrium, and edge condition.</p>	<ul style="list-style-type: none"> • Refer to sheets 50 to 63. • Mesh has moved to the other side of the atrium. • Provided an overview of the form of the mesh and its differing gauge dimensions and connection detail to the slab. Continued representation of constellation with nodes. • Joinery aligns with the mesh. 	<p>Generally acceptable to DERC. Horizontal loadings and rigidity of screens to be investigated.</p>
<p>8. The external ducts on north façade to be reviewed in terms of aesthetic and materiality</p>	<ul style="list-style-type: none"> • Refer to sheets 42 to 48. • Provided an overview of the refined Engineer solution. • Presented a model of the external louvre connections. • Noted ducts can be removed and replaced if required. 	<p>Generally acceptable to DERC. The Panel looks forward to further design development and refinement of the external ducts materiality, detail and geometry.</p>
<p>9. WMBB strategy is promising in terms of integration into building tectonics – specifically with idea for the ground plane, its materiality and contiguity between in and out.</p>	<ul style="list-style-type: none"> • Refer to sheets 06 to 19. • Identified the WMBB connection with the ground plane, constellation of spaces, articulation of the existing building, the mesh, the refined engineering and the veil. • Creating culturally safe places. • Landscape narrative includes: ground plane contiguity and materiality, constellation of spaces, external teaching/learning and performance and celebration spaces. • <i>Integrated Art Strategy</i> - Adaptation of tools and technology from traditional to new. Inspiration from the Shared Knowledge Hub digital exhibition. • <i>Ground Plane</i> – to use indigenous flora and fauna. Continued expansion of Cadigal Green concepts into the ground plane. 	<p>Generally acceptable to DERC. Ongoing collaboration with WMBB representative required during design development.</p>



Engineering & Technology Precinct (ETP) Redevelopment Project (Stage 1)

At the presentation on 31 August 2018, the DERC panel are satisfied that the 9 identified design items in the report dated 27 September 2017 have been adequately resolved, and endorse the design as being capable of achieving design excellence.

The DERC will remain involved in the project as it develops.

Subject to:

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Signed

DERC Member:

Kim Crestani

Kim Crestani

31/08
...../...../2018

DERC Member

Tony Caro

Tony Caro

31/08
...../...../2018

DERC Member

Michael Tawa

Michael Tawa

30/08
...../...../2018

DERC Member/ Chair

Juliette Churchill

Juliette Churchill

31/08
...../...../2018

University of Sydney Engineering and Technology Precinct - Stage 1

Design Excellence Review Committee 04

31st August 2018



Agenda

- Process Update
- Wingara Mura
- Ground Plane
- Atrium
- Façade
- Other



The Micro Engineering Design Excellence Process



DERP 03 - Meeting Outcomes & Response to SSDA

Outcomes Addressed

Wingara Mura

- Relationship to the public art strategy

Ground Plane

- Ground plane contiguity and materiality
- Creation of destination spaces not given over to circulation
- Improved urban edges to the public domain

Façade

- Refine the Roof / Skylight / Atrium & South West Corner Articulation
- Clarification of Façade Types
- Facade Details
- Materials and Finishes
- Signage Details

Atrium

- Variety in scale of gathering spaces
- Simplified forms
- Atrium edge details

Other

- Access Strategy
- Future level 9 roof top access
- Confirmation and Architects engagement



Design Narrative



01

Engineering on Display

- Diversity of programme and activities
- A living organism
- Curating for innovation
- A new way to visualise

02

A Connected Community

- Engaging the public
- Creating places for all
- Linking the community and the University
- Connecting to the world

03

Driven by Innovation

- Innovation at heart
- All programme requiring innovation
- Promoting new ways of thinking
- Sustainability for the future

04

Flexible and Functional

- The ideal floor plate
- Long-term flexibility
- Recognising a 50+ year life and re-life
- Minimising disruption

05

24/7 Precinct

- Diversity of uses
- Live, study, work, play
- Supporting a diverse community

06

Sustainability

- Passive through design
- Building reuse
- Effective and high performing
- A living data resource

07

Wingara Mura Strategy

- Integrated Landscape
- Constellation of Spaces

A precision veil encapsulating a constellation of spaces

Wingara Mura



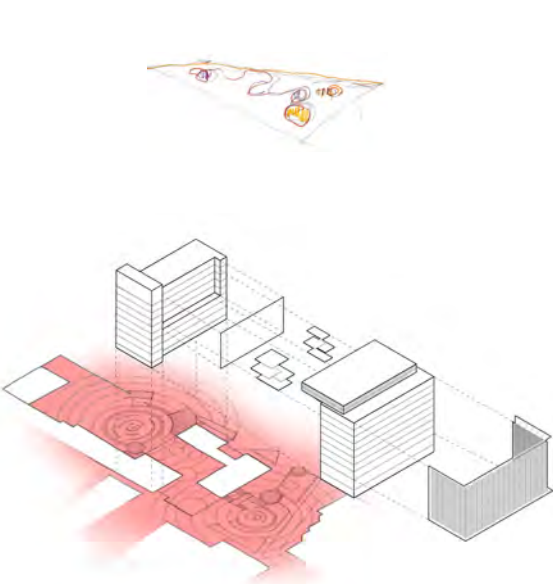
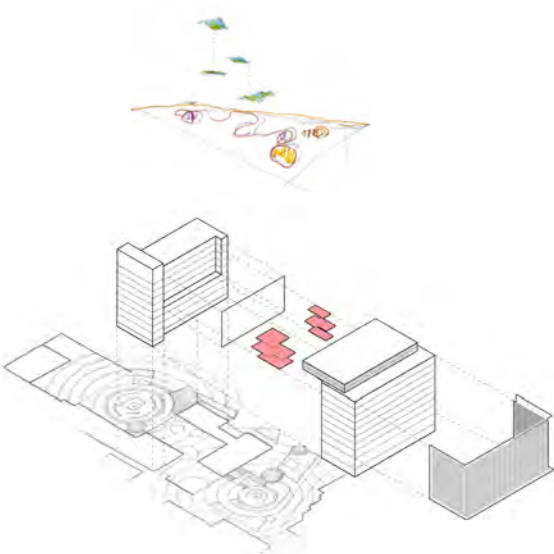
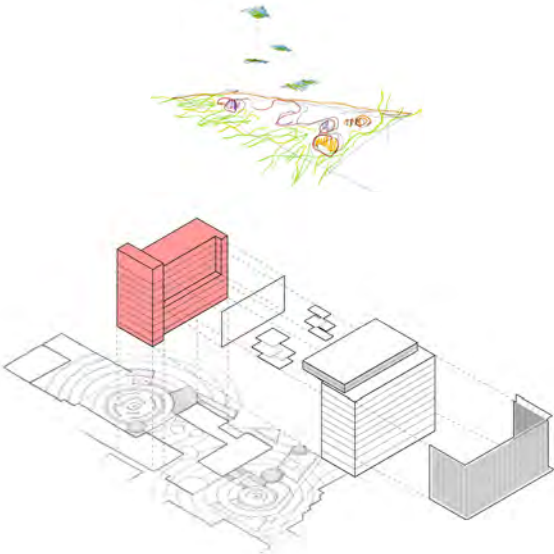


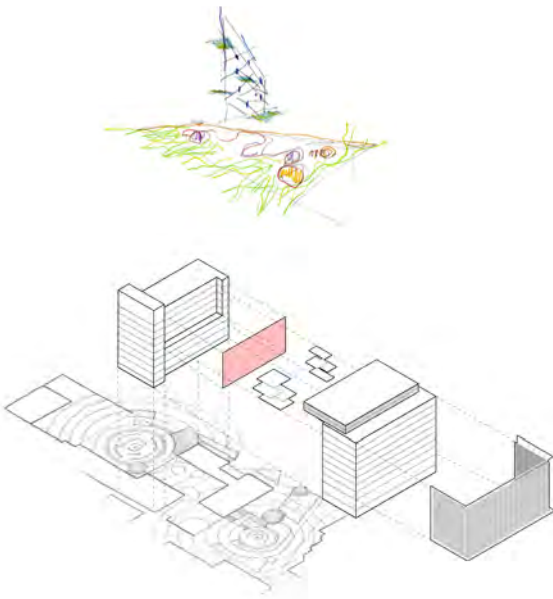
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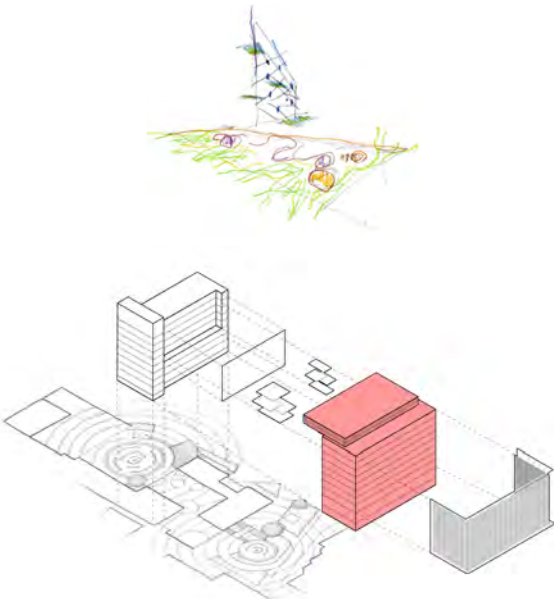
Constellation of Spaces



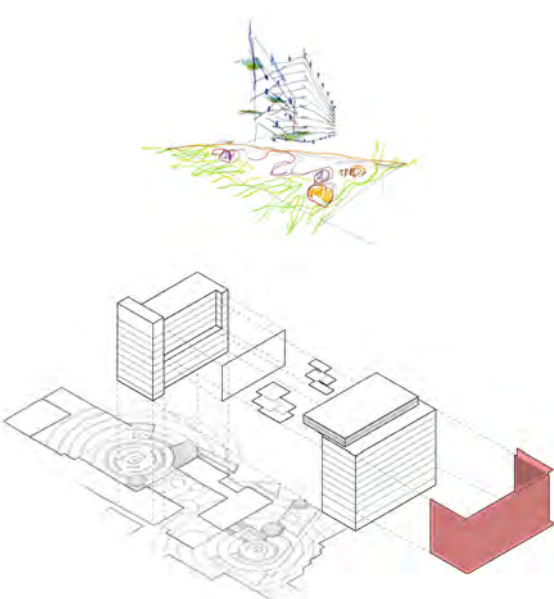
Articulation of Existing



The Mesh



Refined Engineering



The Veil

Culturally Safe Space

Commonly Used Definition:

[an environment that is spiritually, socially and emotionally safe, as well as physically safe for people; where there is no assault challenge or denial of their identity, of who they are and what they need. It is about shared respect, shared meaning, shared knowledge and experience of learning together

Ref Williams, R. (1999). Cultural safety – what does it mean for our work practice?
Australian and New Zealand Journal of Public Health, 23(2), 213-214



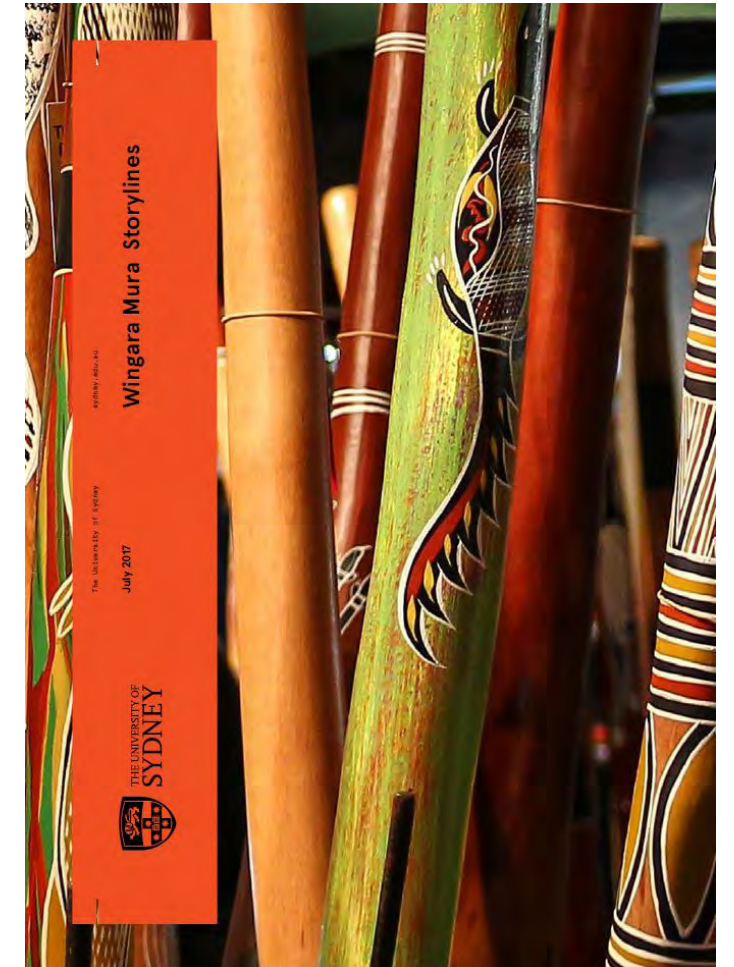
Creating Culturally Safe Spaces

Evolution of Culturally Safe Spaces

- First developed in New Zealand in the 1980 to address issue with Major Health Care
- Adapted to Australian Healthcare
- Further adaptation to other typologies including Justice and Education

Culturally Safe Space in Design Principles for Education:

- Engage in consultation with the local community
- Make relevant for local Indigenous nation and other heterogeneous Indigenous groups
- Ensure access and vision to external spaces
- Provides signs & symbols acknowledging the traditional custodians
- Provide imagery of Indigenous students, academics & research
- Provide space for gathering
- Create spaces that promote the feeling of physical safety
- Create spaces that promote sharing



Recent Indigenous Art Projects



Remember Me
Reko Rennie



Bara
Judy Watson

Integrated art strategy

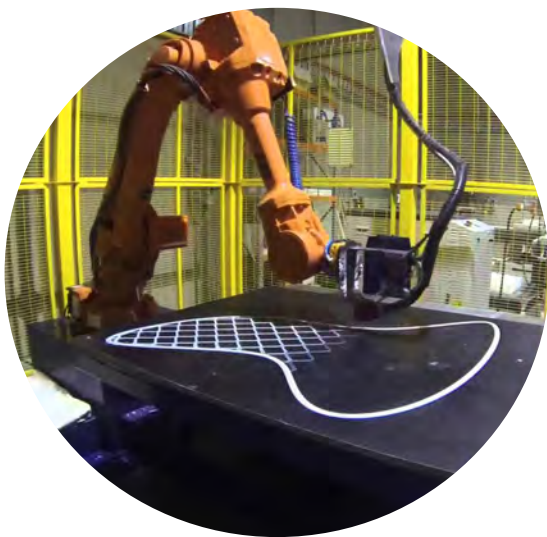


- | | | |
|--|--|-----------------------------------|
| 1. Welcome to Country, National Connectivity, Networks of Knowledge Leadership | 8. Water, Middens, Fish, Food, Health | Animals and Plants |
| 2. Connection to Land and Place, Life, Earth Environmental Science, Fire, Rock, Earth and Sustainability | 9. Visual Arts and Language | Visual Arts |
| 3. Teaching and Knowledge Sharing | 10. Native Animals and Plants, Medicine and Food | Laws, Traditions and Storytelling |
| 4. Connection to Land, Art, History and Reconciliation | 11. Wianamatta Shale, Sit Down Place, Corroboree | Astrology and Physics |
| 5. Connection to Country, Sit Down Place, Storytelling and Paint Up and the Arts | 12. Social Justice, Contemporary Aboriginal History | Waterways, Plants and Health |
| 6. Land, Animals and Sustainability | 13. Tools and Technology, Water | Innovation and Making |
| 7. Health, Medicine and Wellbeing | 14. Land, Past Present and Future, People and Technology | Welcome to Country |
| | 15. Ceremony, Engagement, Music and Songs | Adaptation, Tools and Technology |

Integrated art strategy



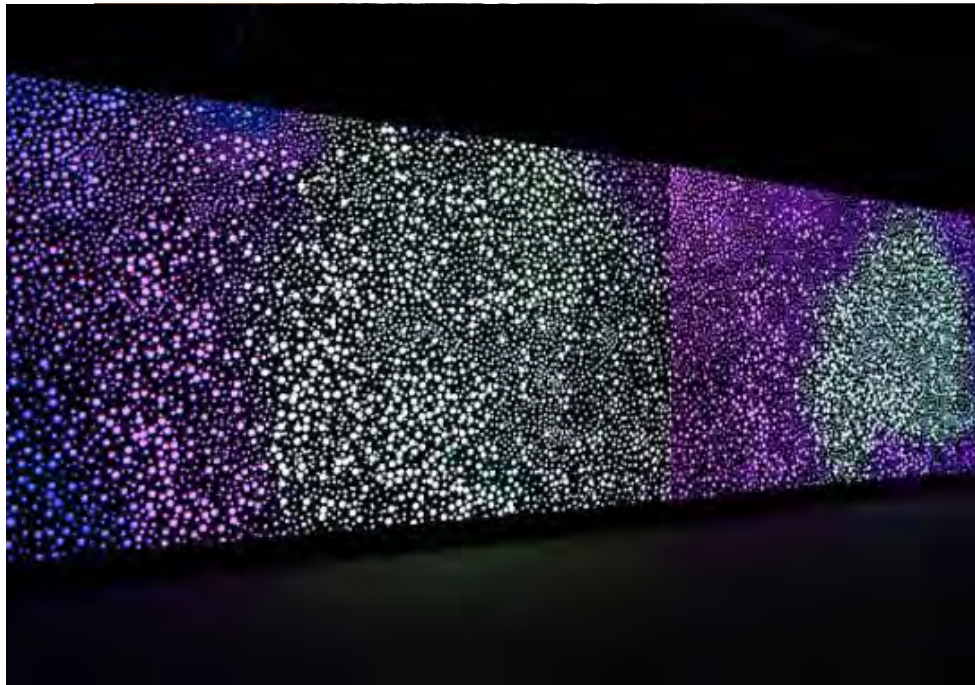
Traditional Technology



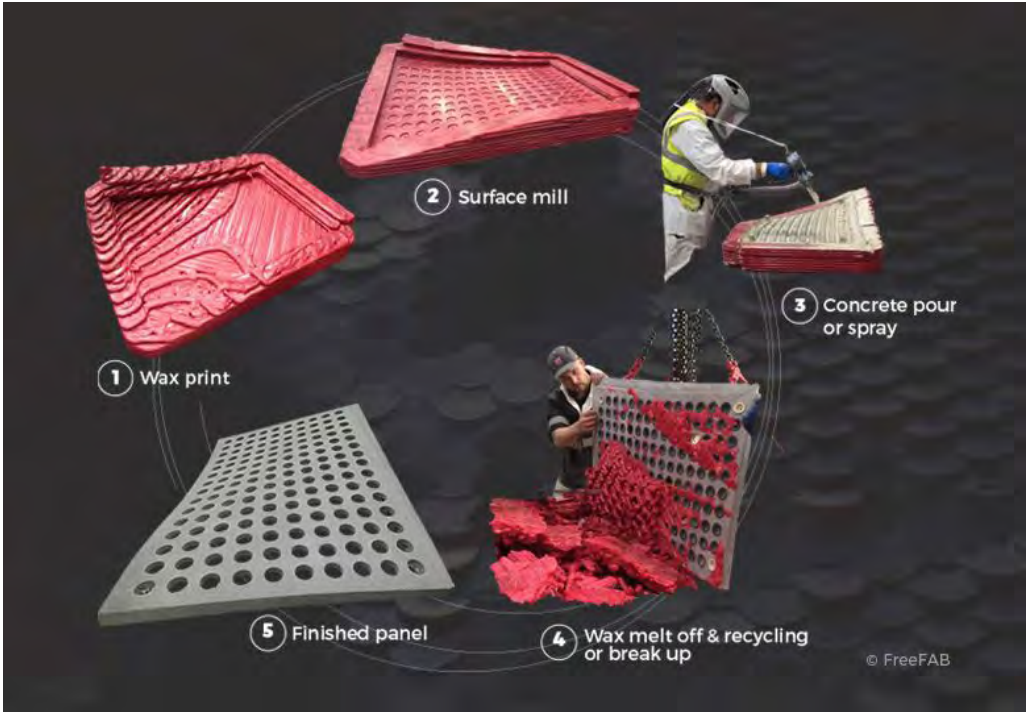
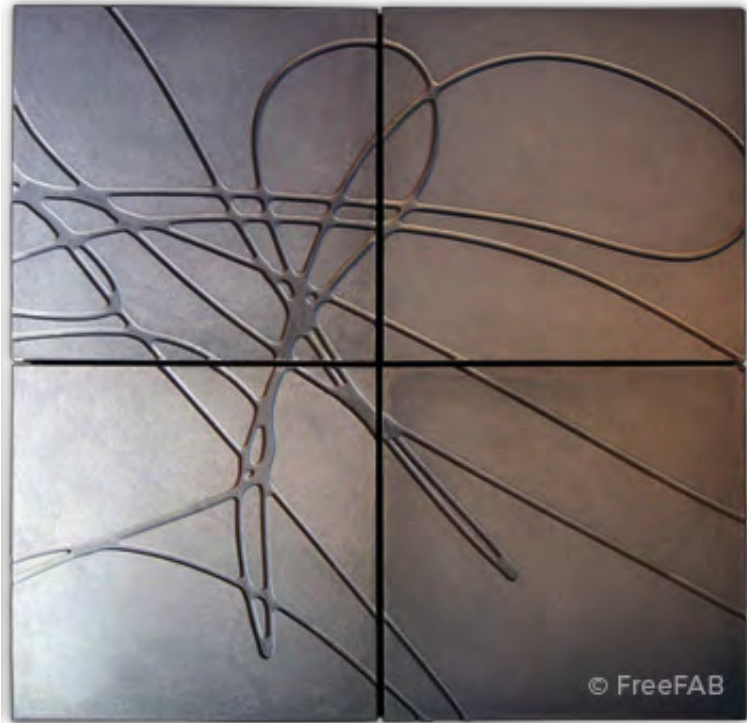
New Technology



Integrated art strategy



Integrated art strategy

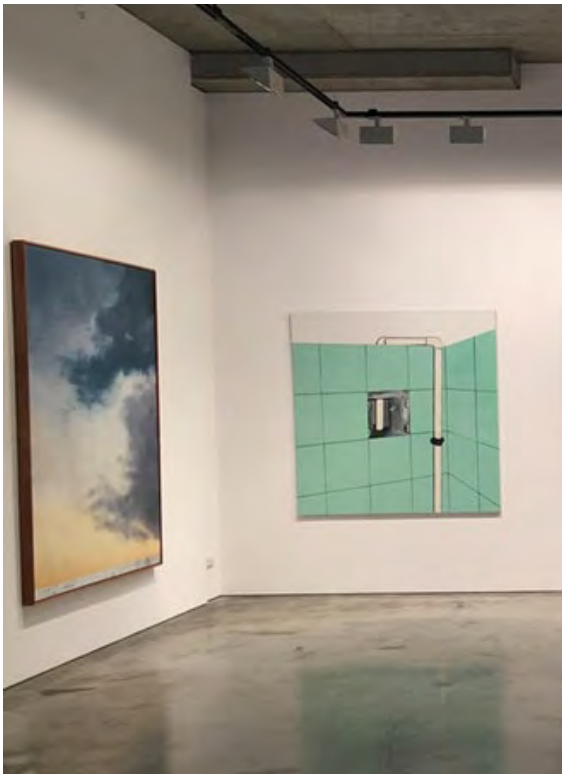


Shared Knowledge Hub

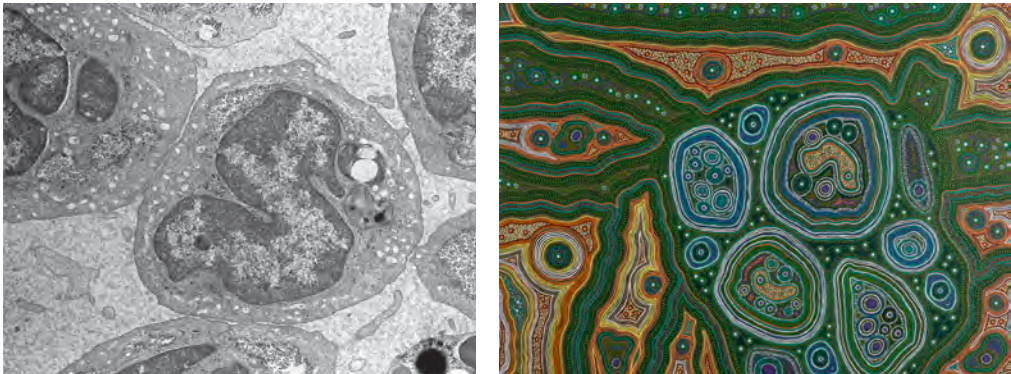
Digital Exhibition



Traditional Exhibition

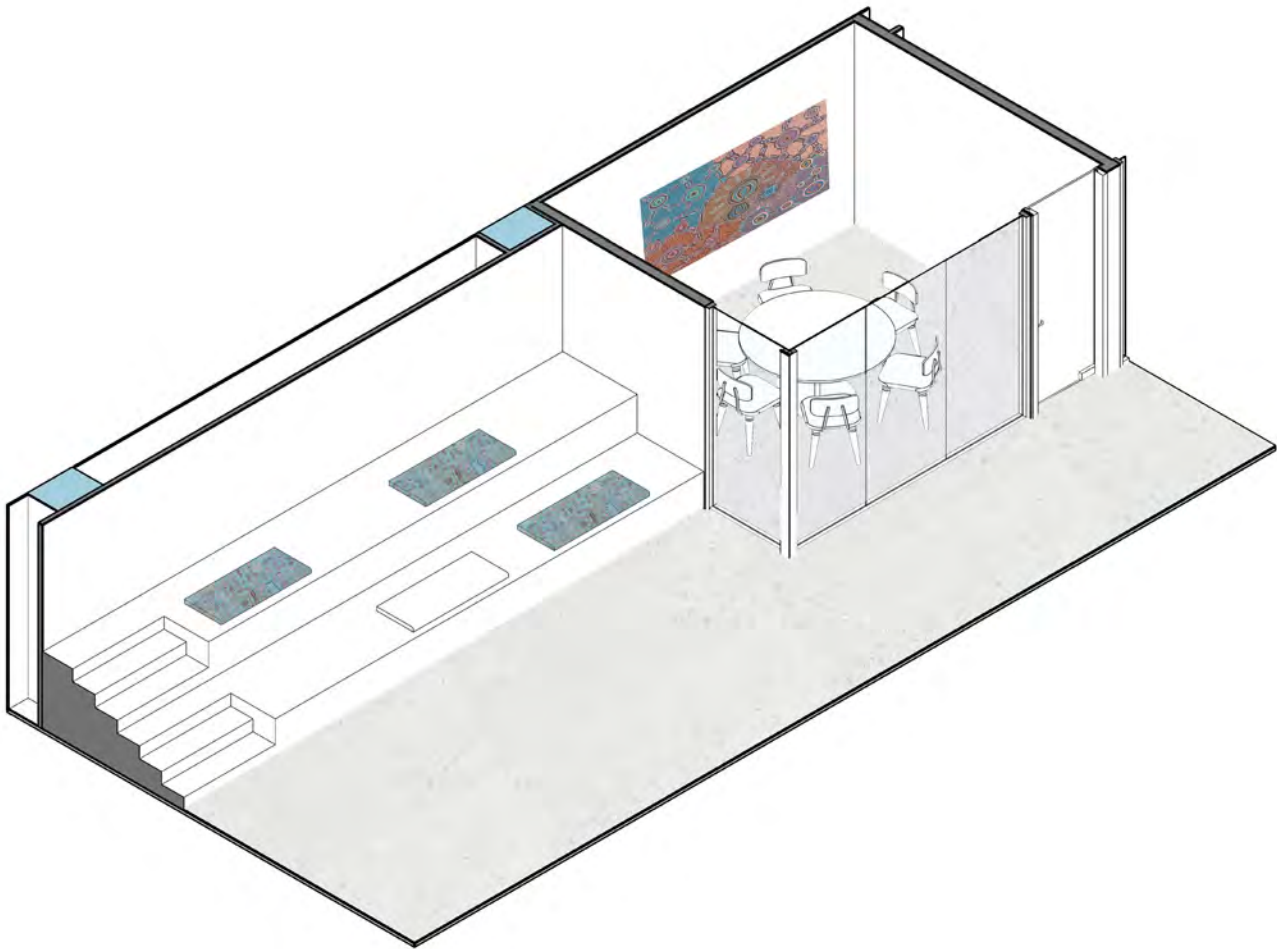


Microscopy



Blood clotting cell from a crocodile

Baayami and Gurriya



Level 3 Meeting room & Informal space

Ground Plane



Landscape Narrative

Creating spaces of **intimacy, gathering, meeting, connecting**

...casual spaces

...teaching spaces

...performance and celebration spaces

In accordance with **Wingara Mura** design principles,
creating “cultural safe spaces” with embedded interpretation of

...women’s places

...water and watercourses

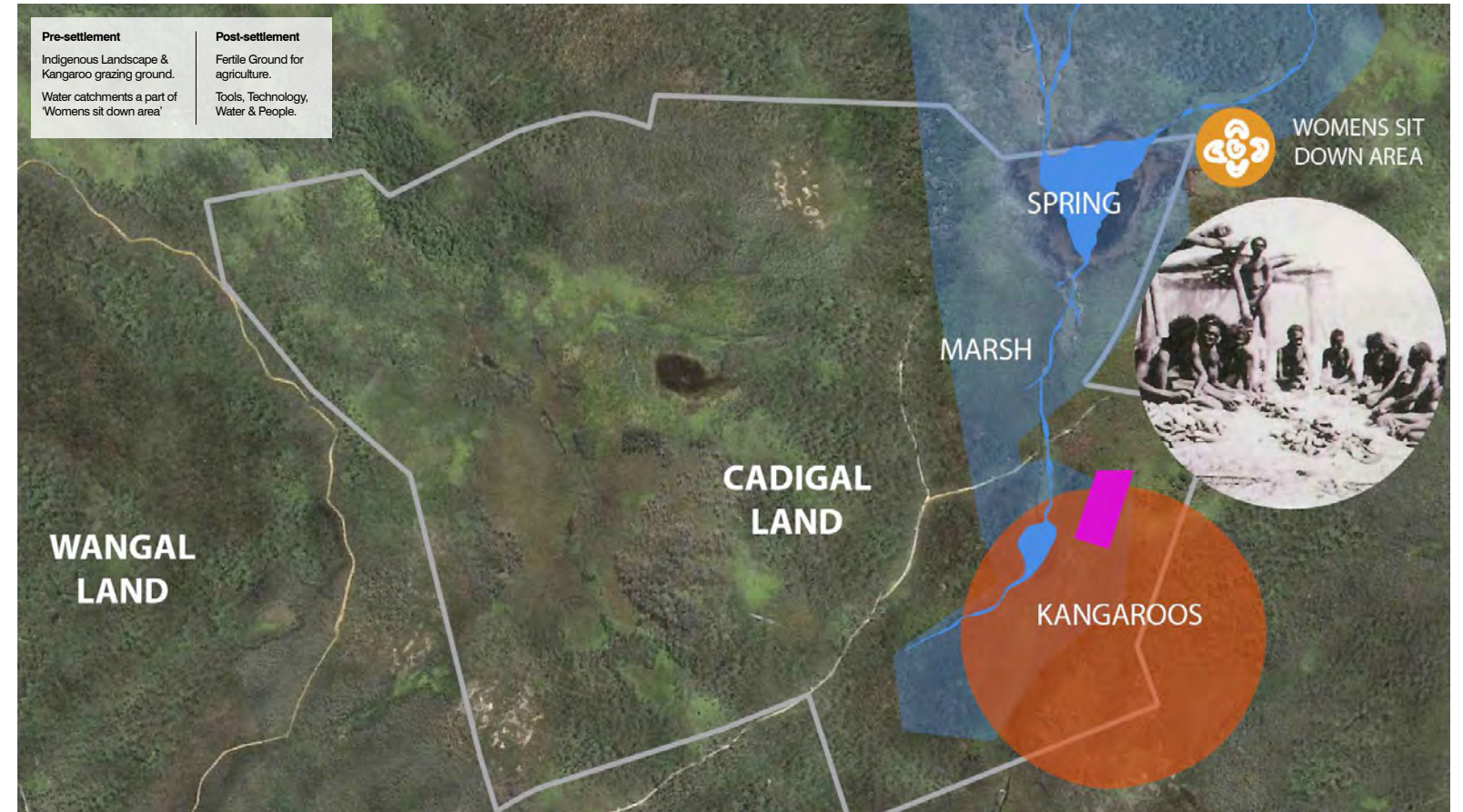
...local totems of country

Encourage the return of the **indigenous flora and fauna**

...more planting, less paving

...sustainable landscapes

...“bush library”



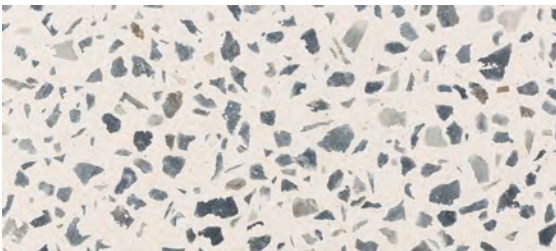
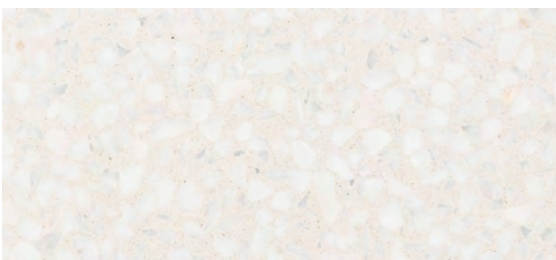
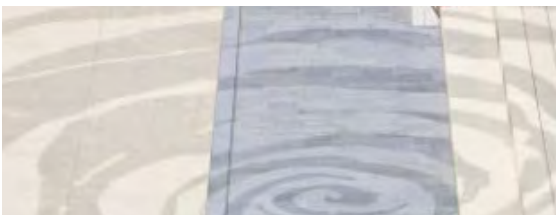
Cadigal Green Constellation



Cadigal Green - First Stage



Ground Plane
Ground plane contiguity and materiality



Ground Plane SSDA



Ground Plane Current



Constellation of Spaces - External Casual Spaces

Creating spaces of *intimacy, gathering, meeting, connecting*
...casual spaces

...teaching spaces

...performance and celebration spaces

In accordance with *Wingara Mura* design principles,
creating “cultural safe spaces” with embedded interpretation of

...women’s places

...water and watercourses

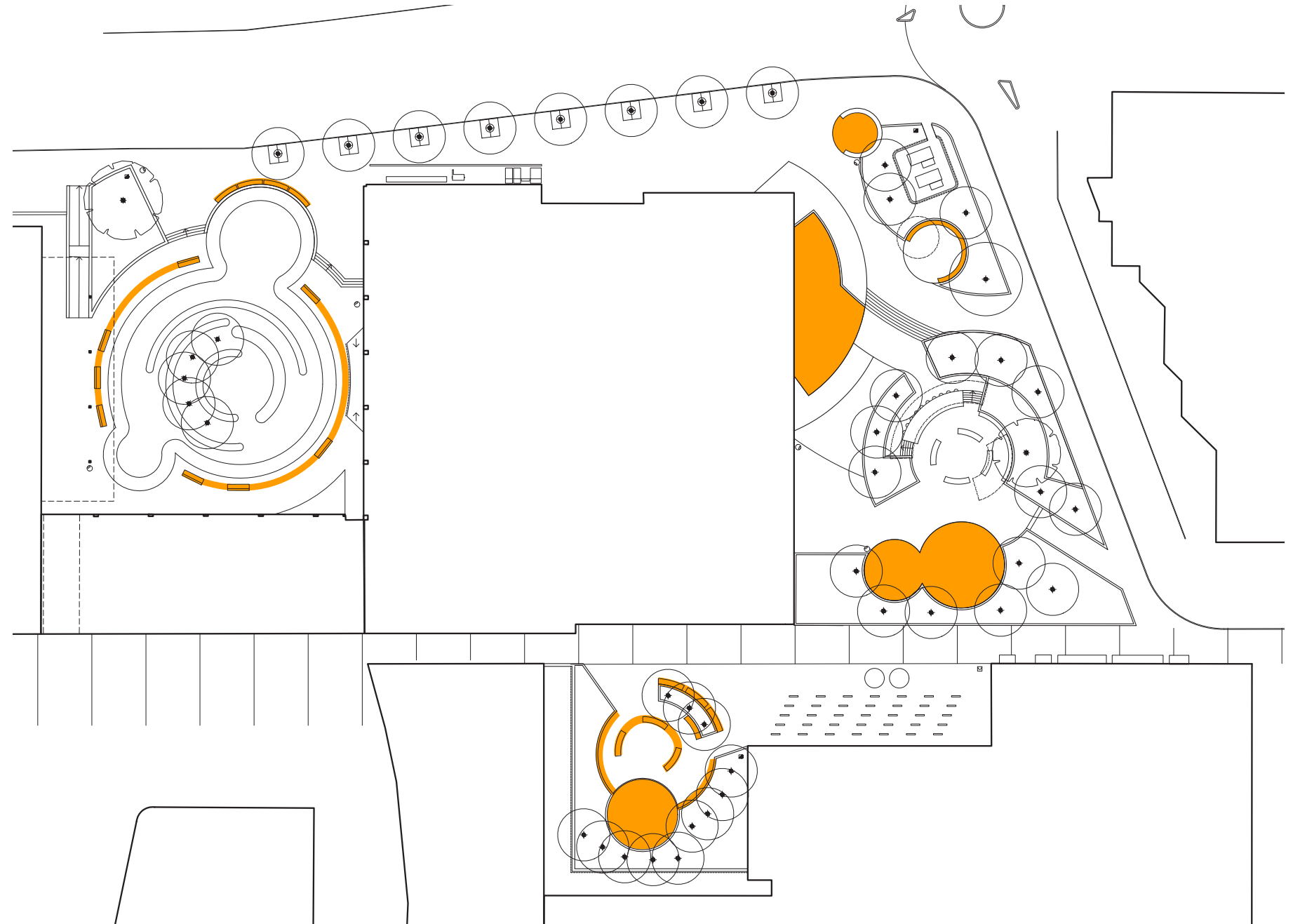
...local totems of country

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...sustainable landscapes

...“bush library”



Constellation of Spaces - External Teaching and Learning Spaces

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...casual spaces

...teaching spaces

...performance and celebration spaces

In accordance with **Wingara Mura** design principles,
creating “cultural safe spaces” with embedded interpretation of

...women’s places

...water and watercourses

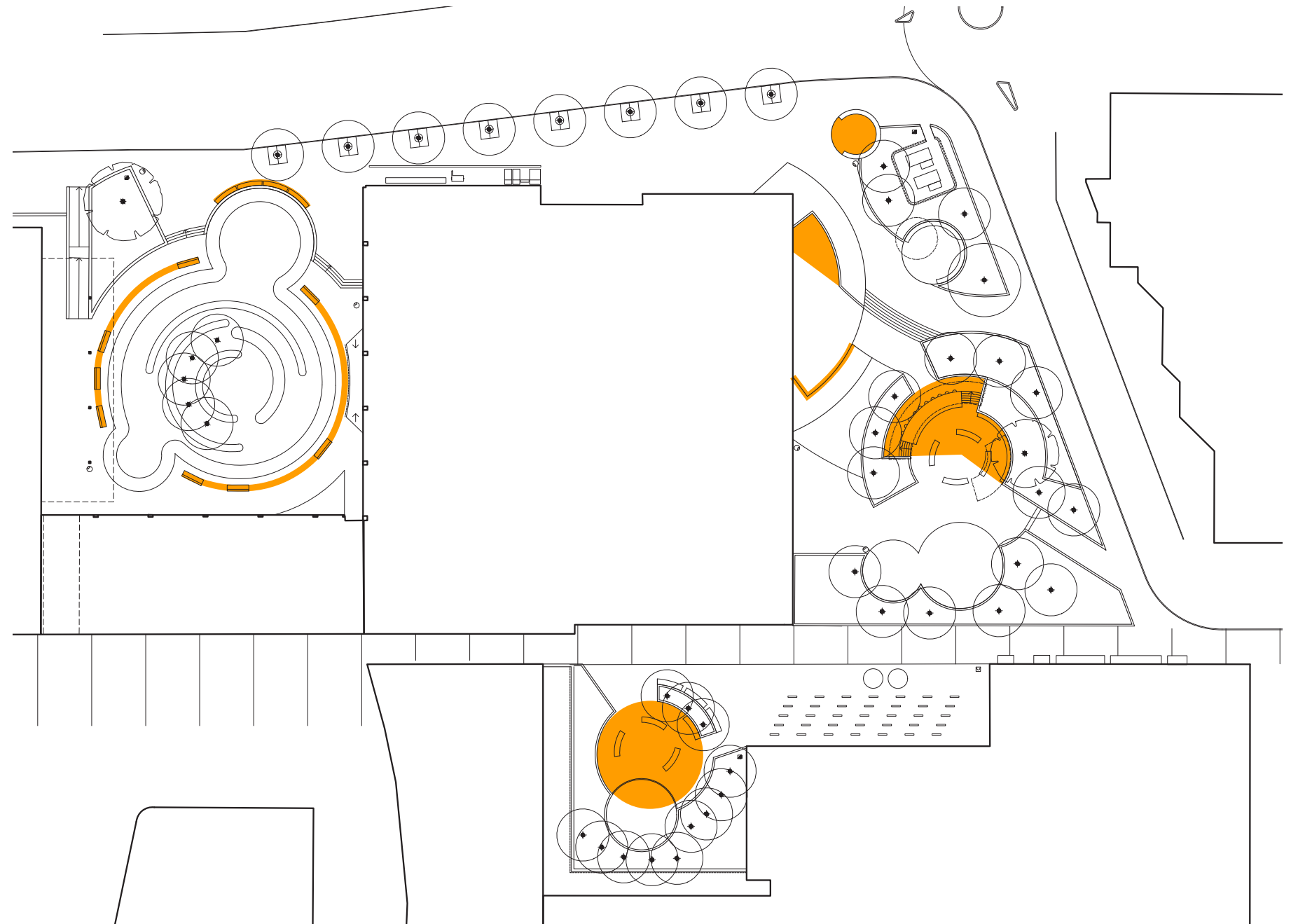
...local totems of country

Encourage the return of the **indigenous flora and fauna**

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...sustainable landscapes

...“bush library”



Constellation of Spaces - External Performance and Celebration Spaces

Creating spaces of **intimacy, gathering, meeting, connecting**

...casual spaces

...teaching spaces

...**performance and celebration spaces**

In accordance with **Wingara Mura** design principles,
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...water and watercourses

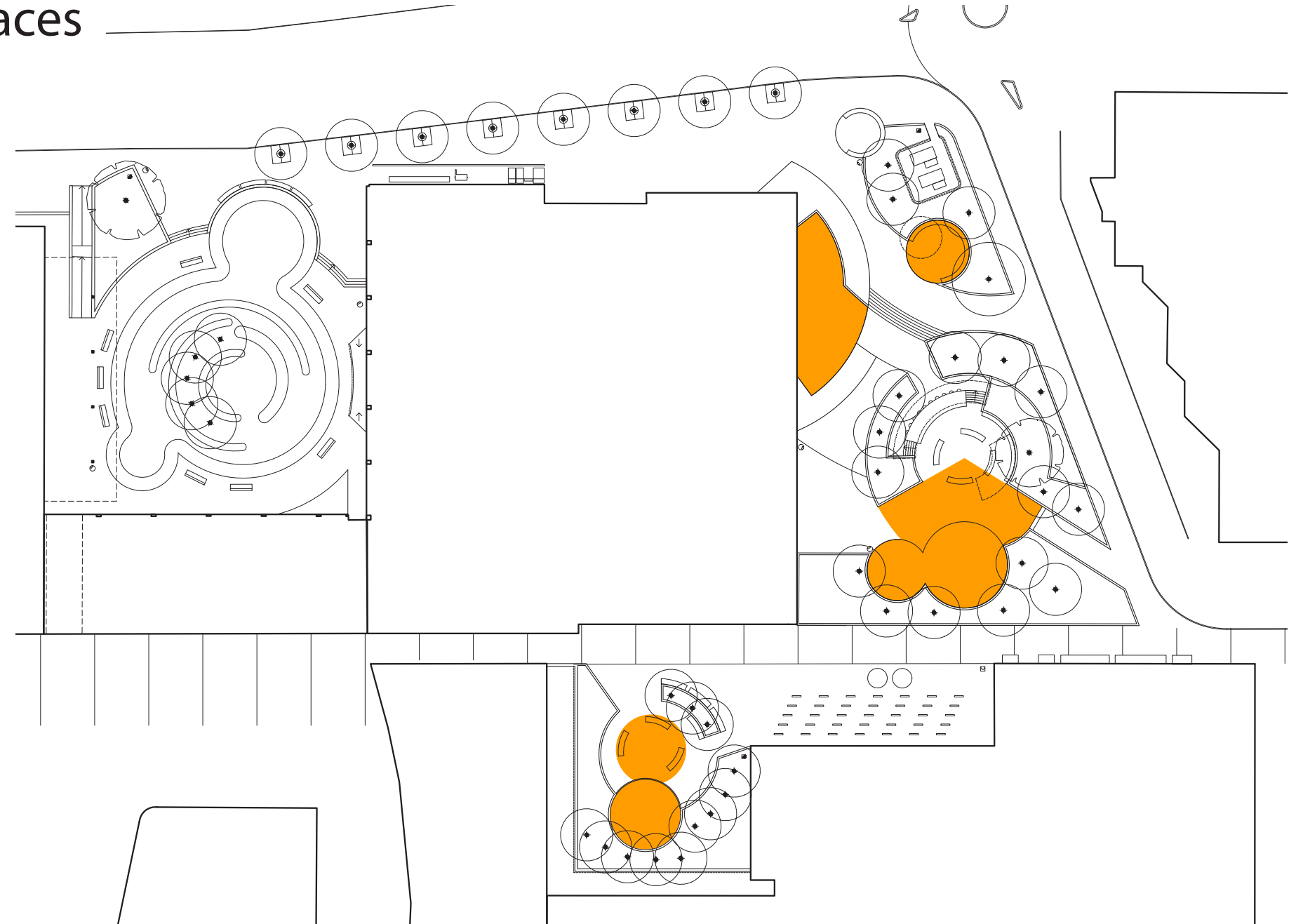
...local totems of country

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Constellation of Spaces - External Culturally Safe Spaces

Creating spaces of **intimacy, gathering, meeting, connecting**

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...teaching spaces

...performance and celebration spaces

In accordance with **Wingara Mura** design principles,
creating “cultural safe spaces” with embedded interpretation of

...women’s places

...water and watercourses

...local totems of country

Encourage the return of the **indigenous flora and fauna**

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Constellation of Spaces - External Culturally Safe Spaces

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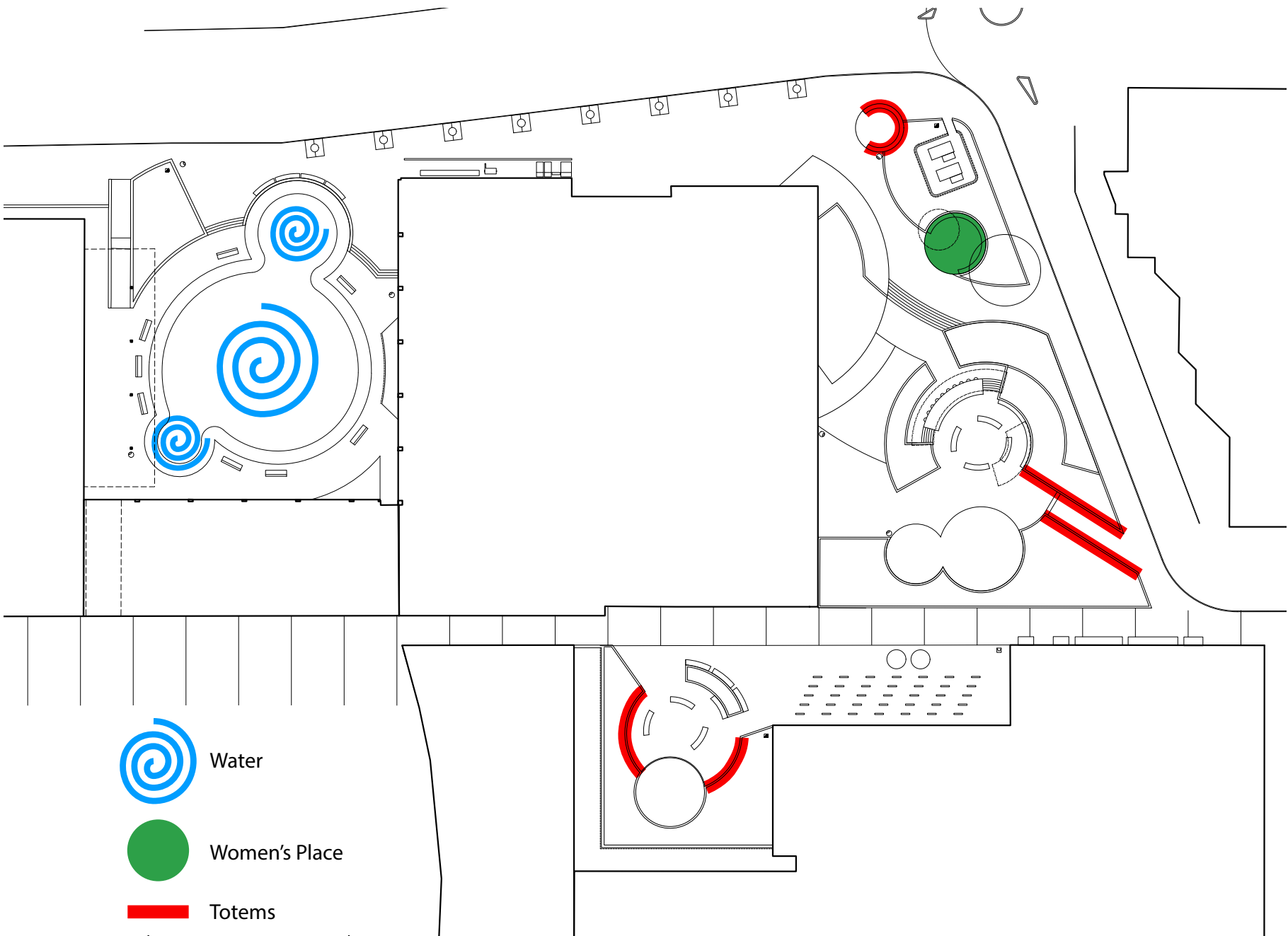
...local totems of country

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Constellation of Spaces - External Flora and Fauna

Creating spaces of **intimacy, gathering, meeting, connecting**

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Constellation of Spaces - External Flora and Fauna

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Ground Plane SSDA



Ground Plane

Creation of Destination Spaces not given over to circulation



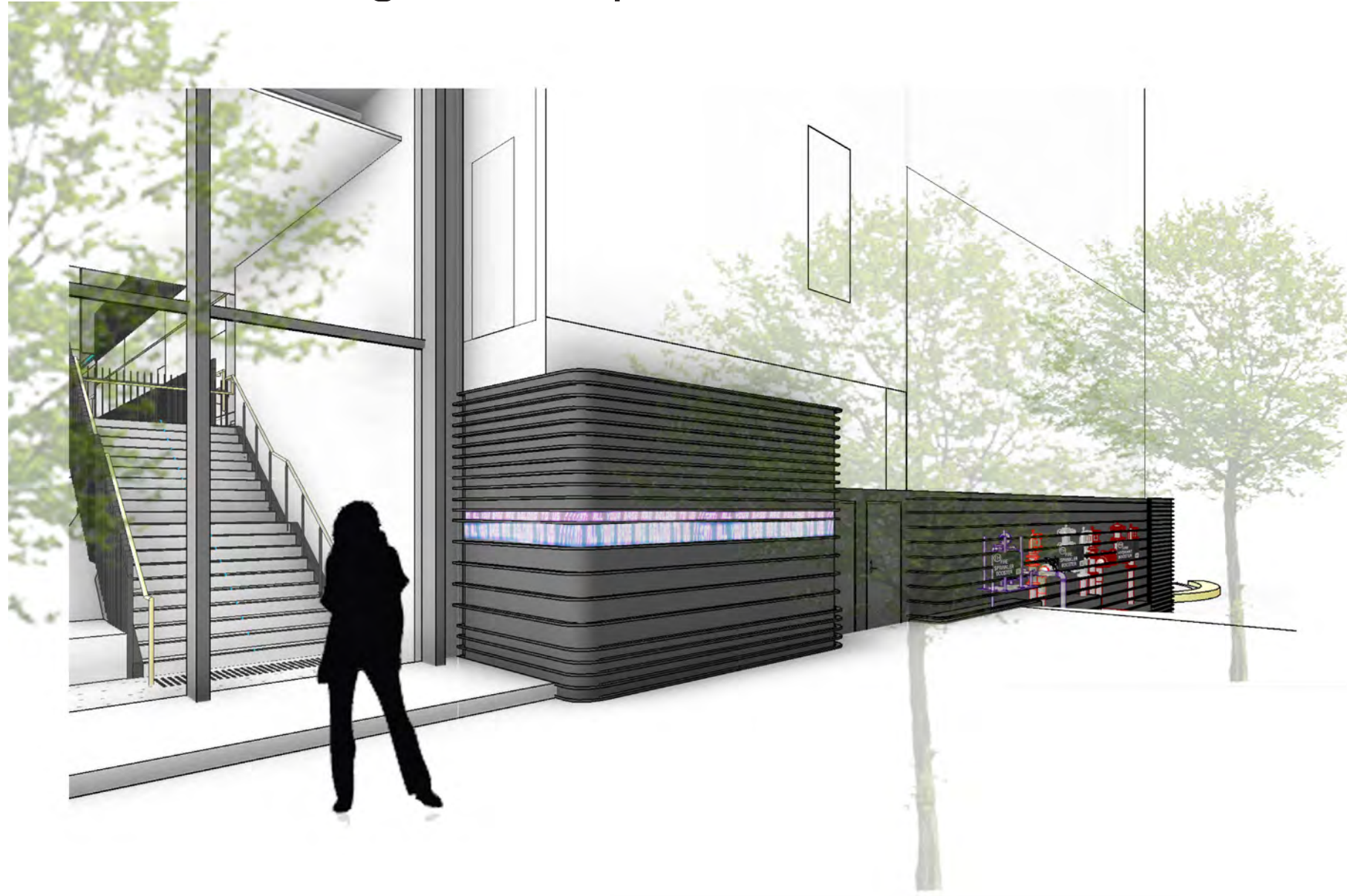
Ground Plane



External Destination Spaces

Ground Plane

Improved urban edges to the public domain

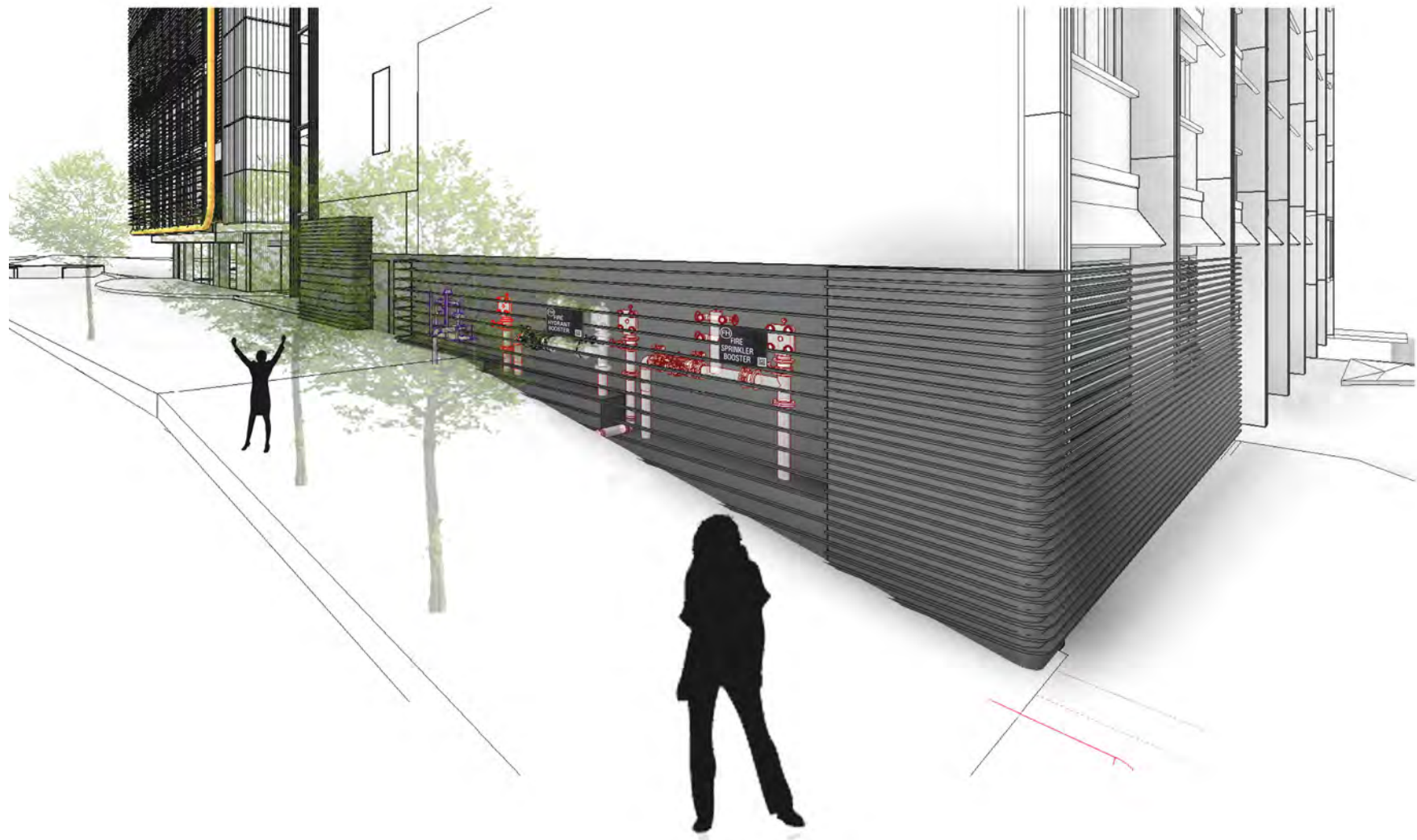


- Engineering on Display
- Self Directed Learning
- Communication Node



Ground Plane

Improved urban edges to the public domain



Ground Plane

Improved urban edges to the public domain



Façade

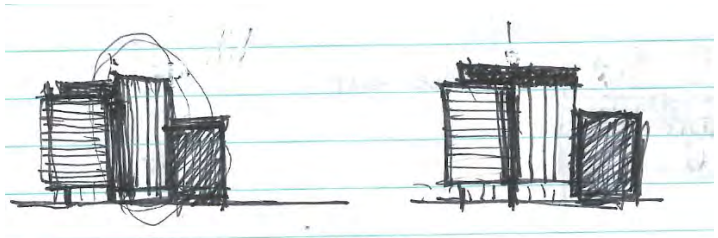


Façade Veil



Façade

Refinement of the Roof / Skylight / Atrium & South West Corner Articulation



PROPOSED



EXISTING

Façade

Refinement of the Roof / Skylight / Atrium & South West Corner Articulation

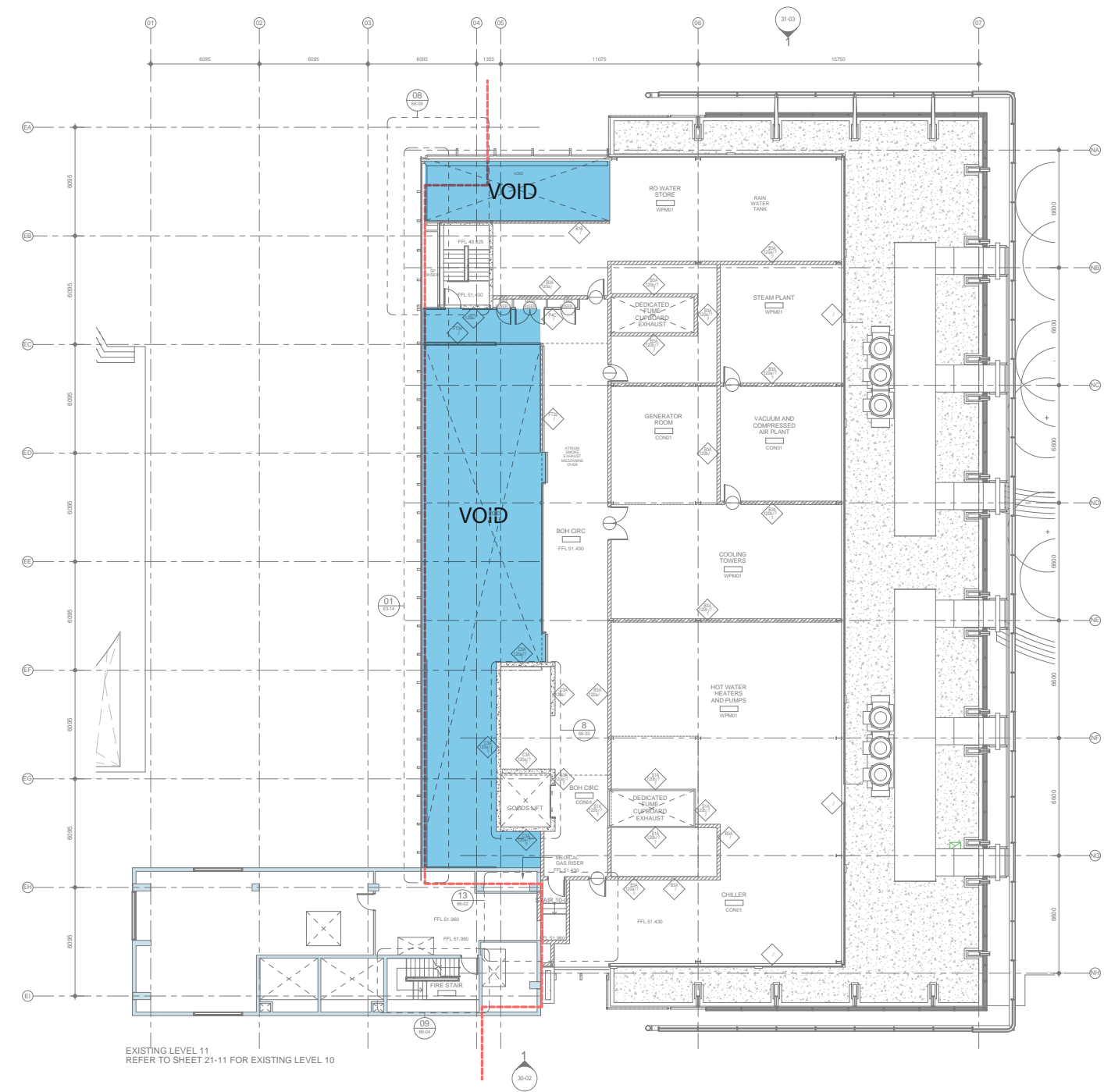


PROPOSED

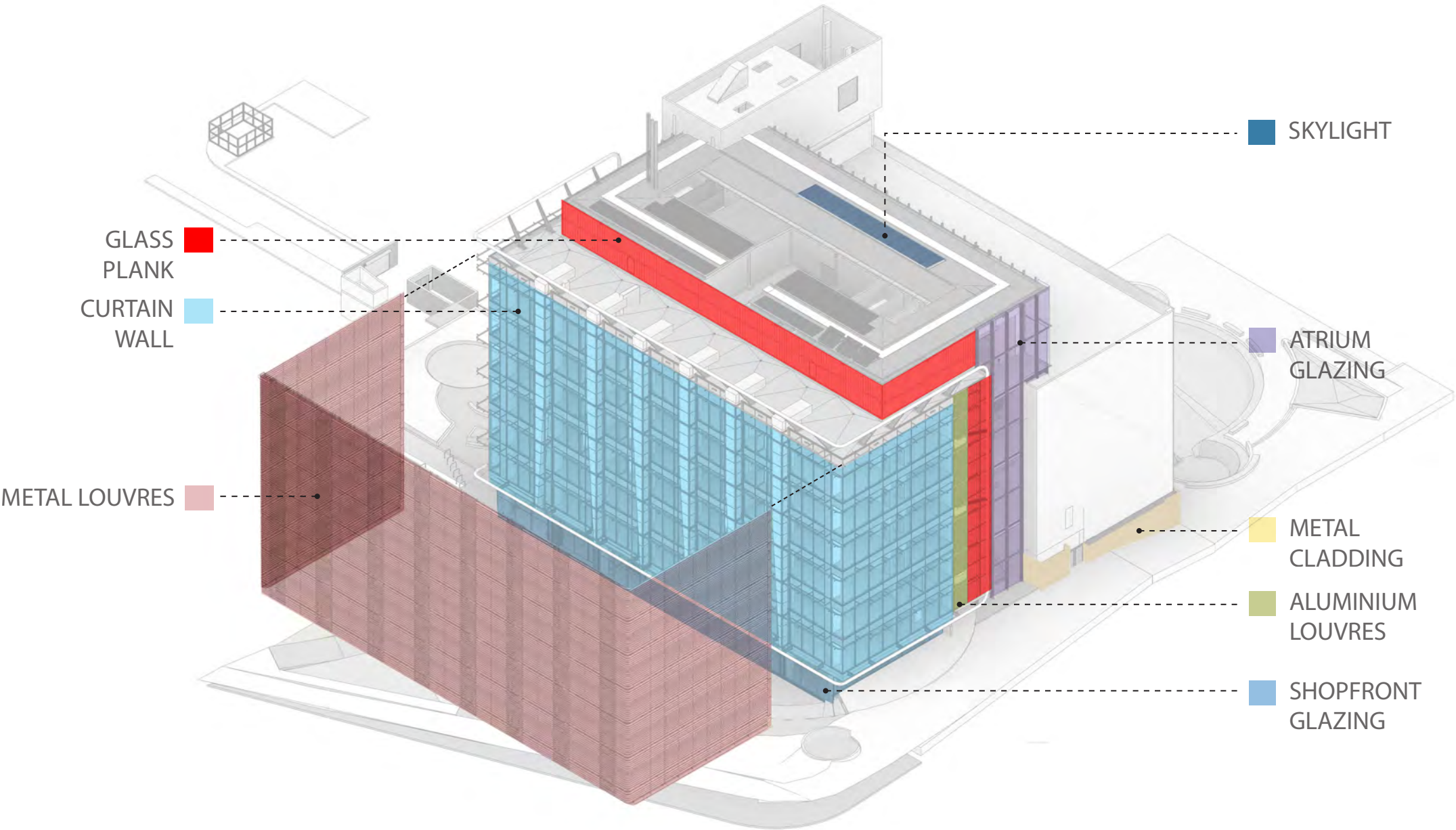


EXISTING

Level 10 Plan

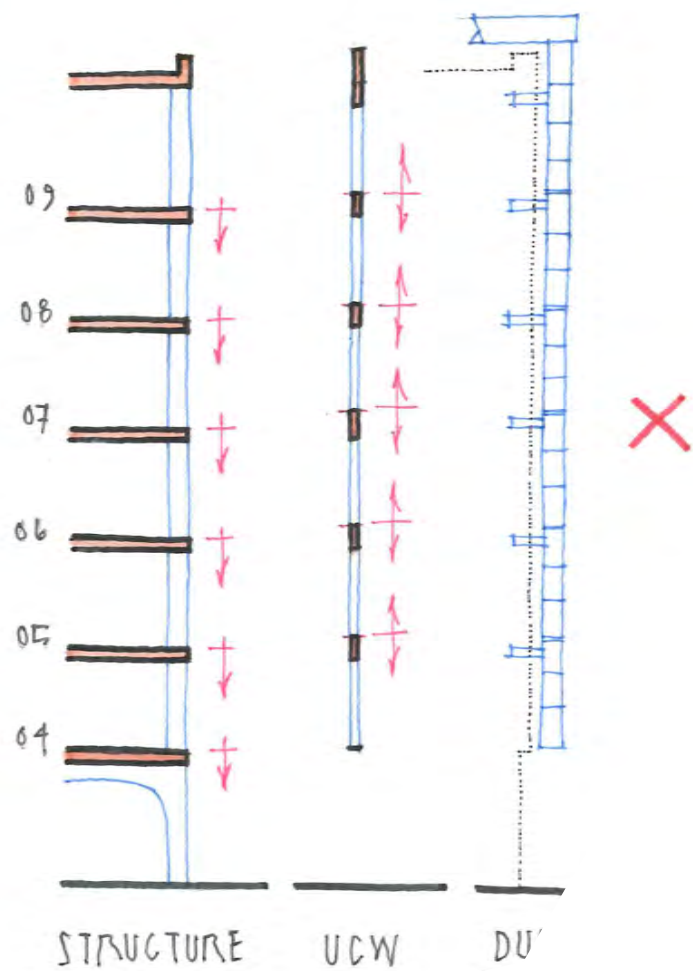


Facade Types

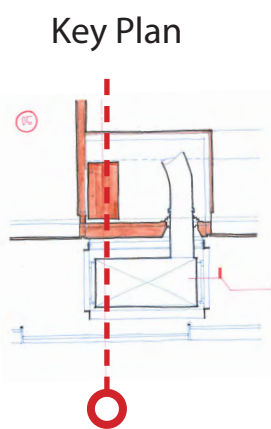
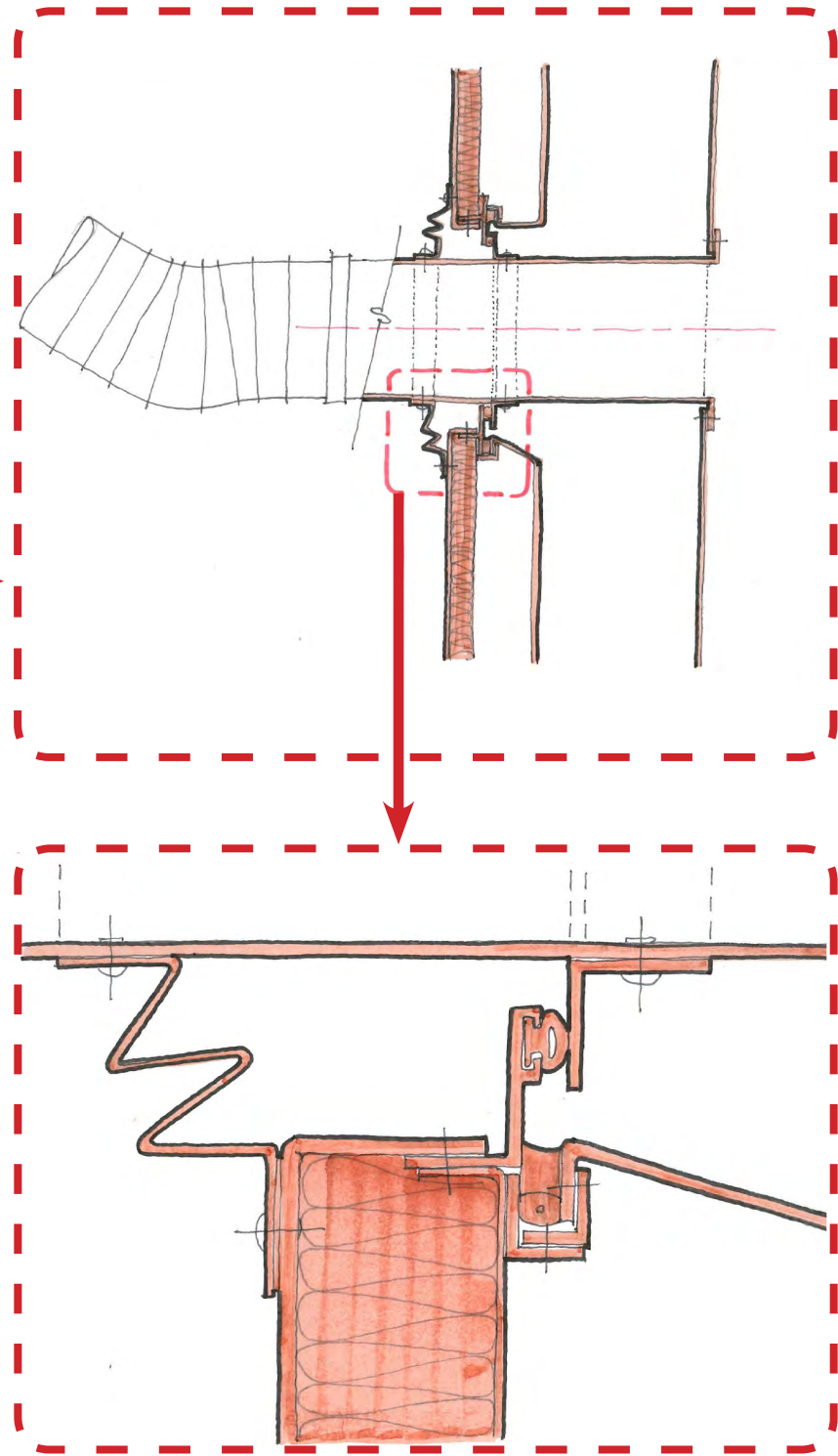
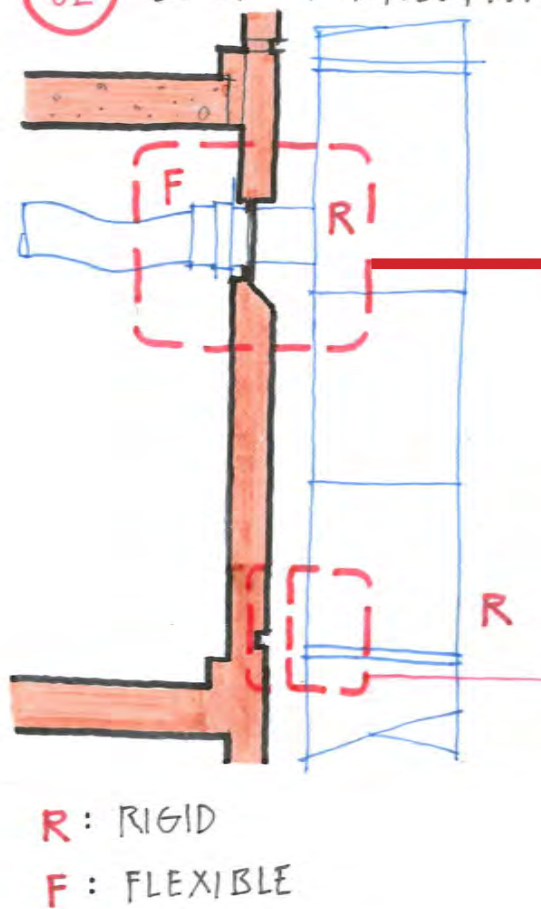


Façade Details - Sketches

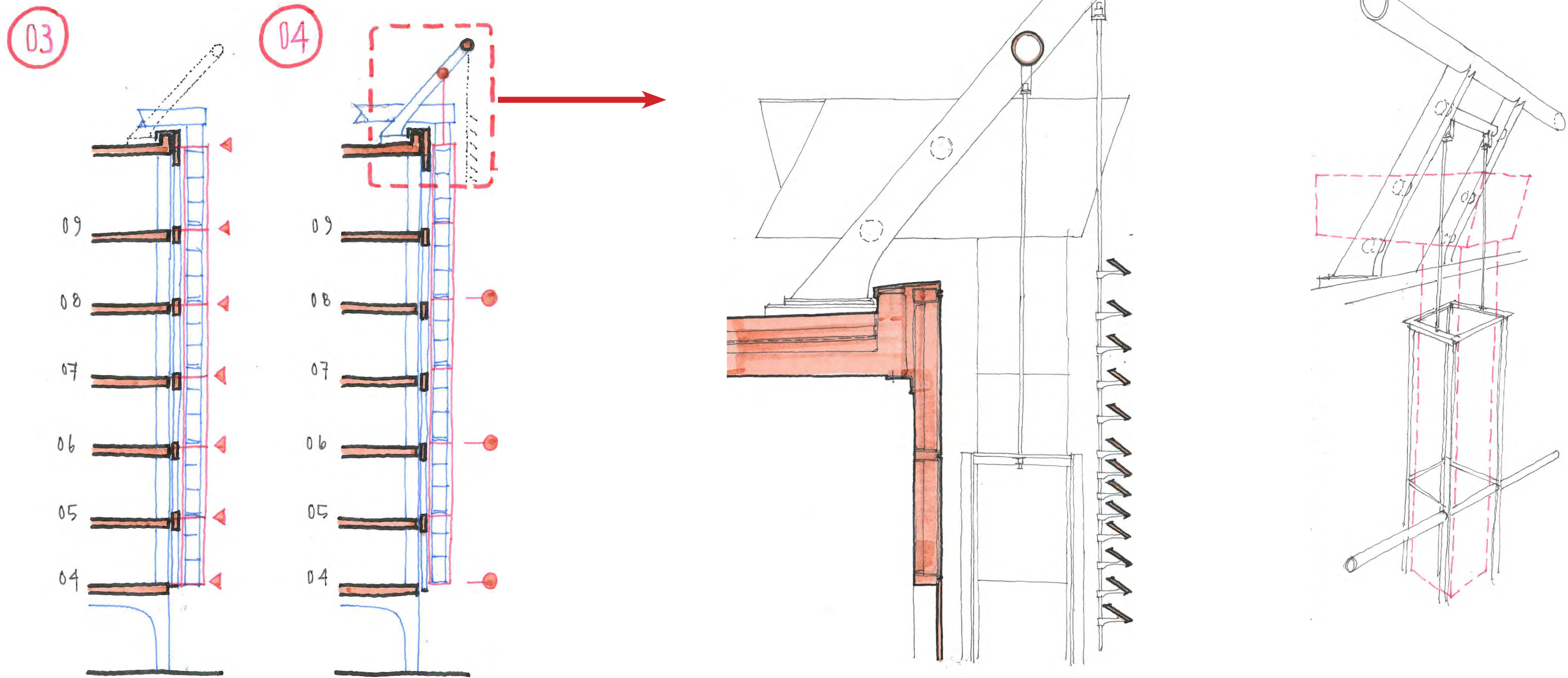
01 VERTICAL MOVEMENT



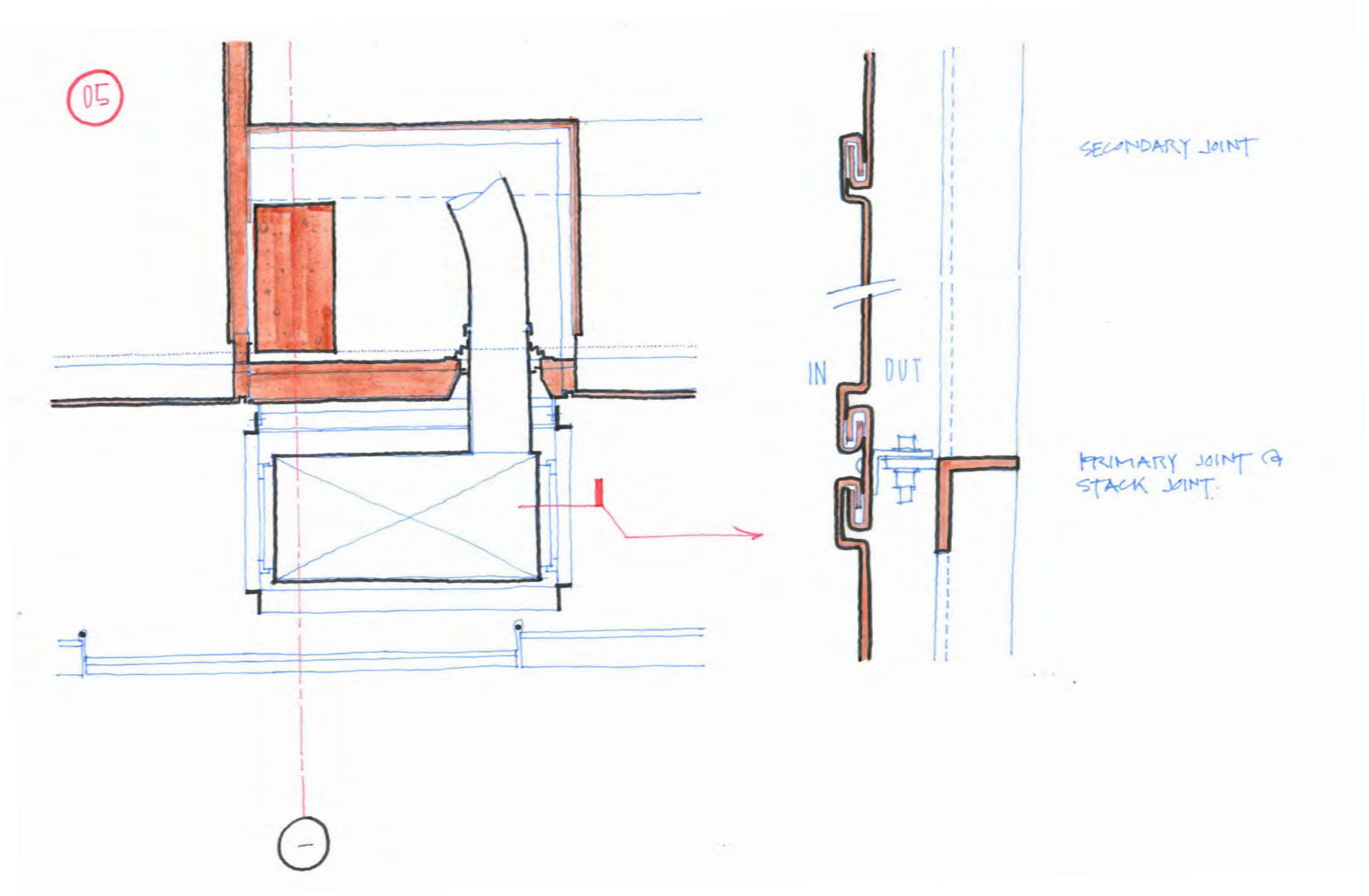
02 DUCT CONNECTIONS



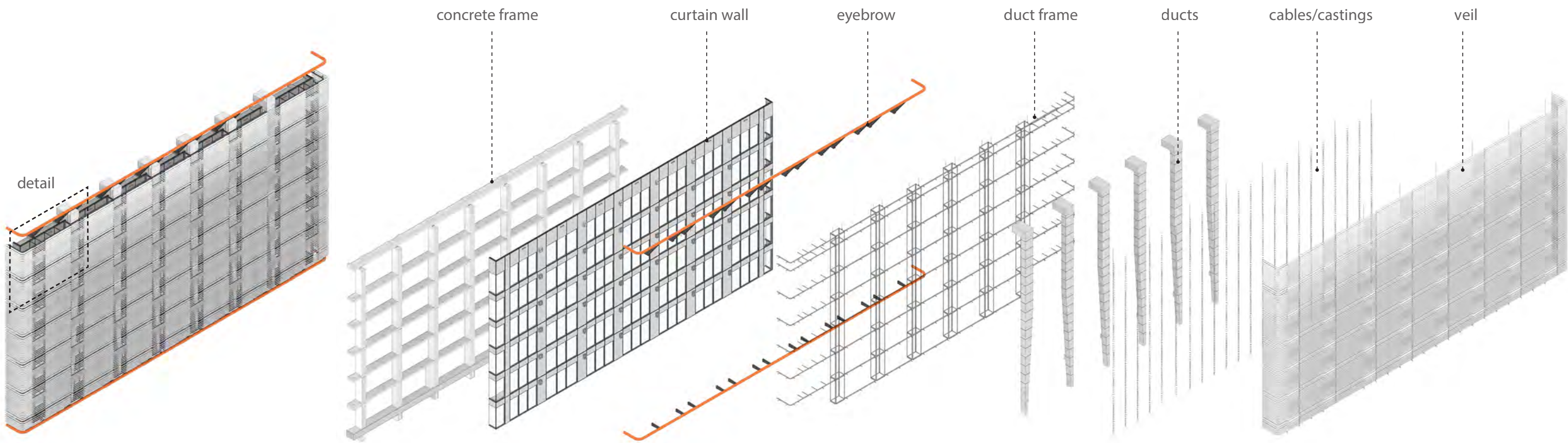
Façade Details - Sketches



Façade Details - Sketches

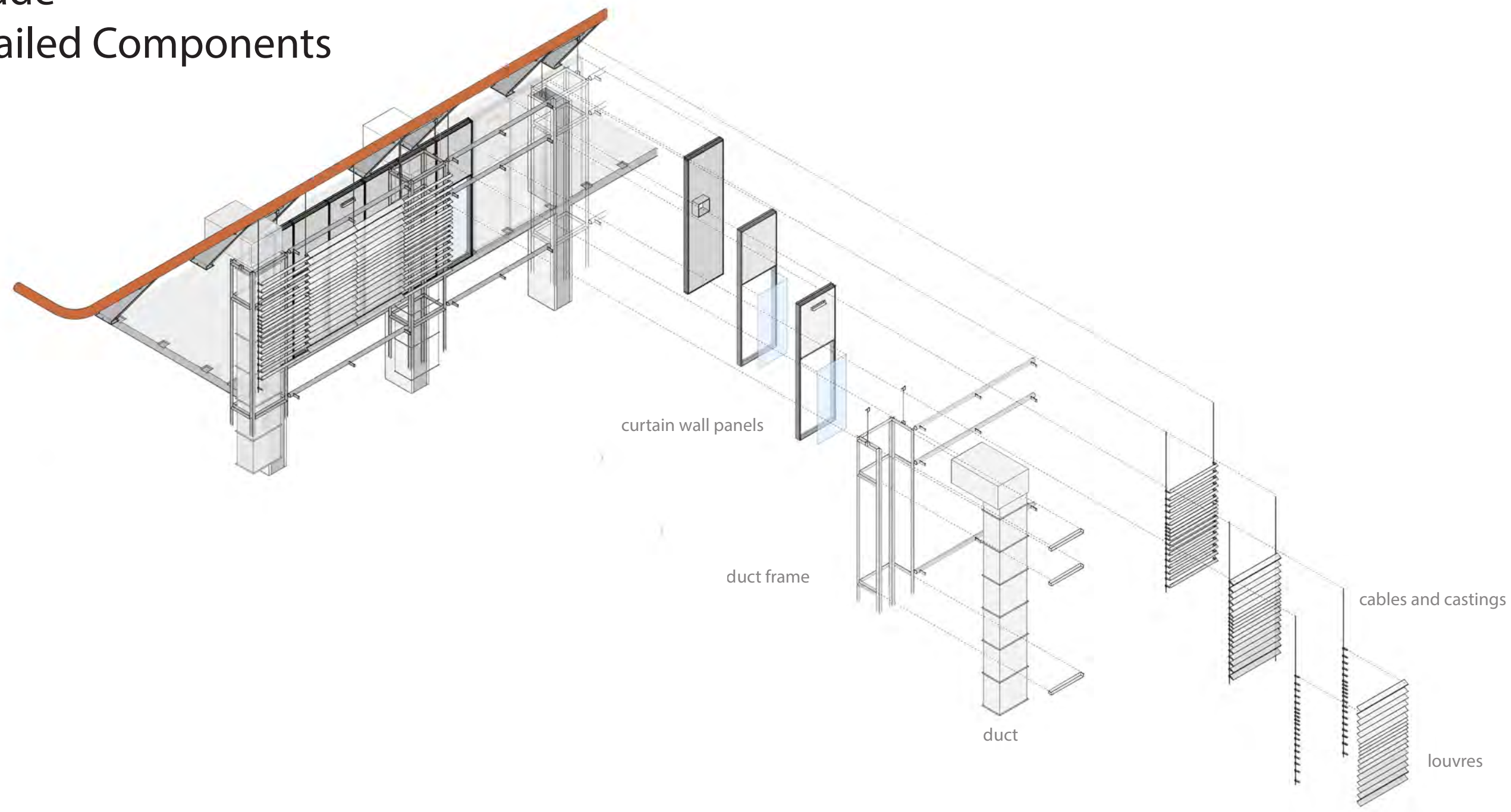


Façade Components

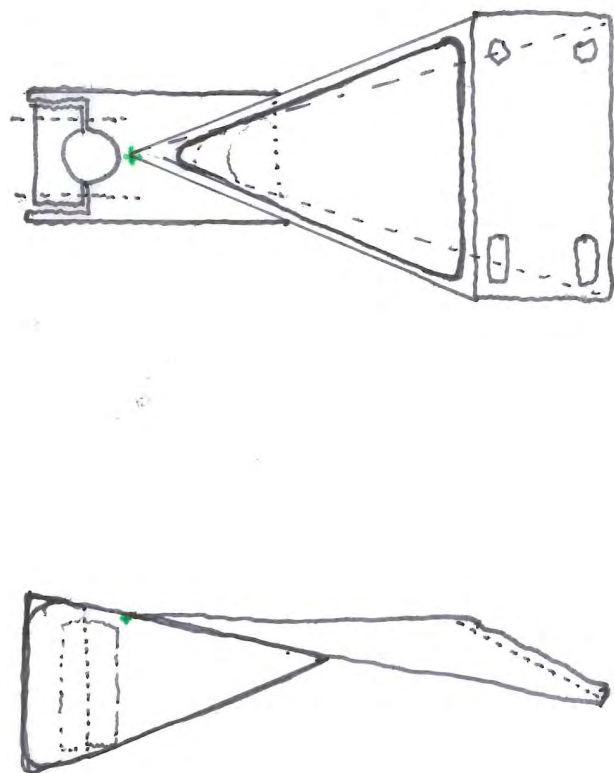


Façade

Detailed Components



Façade Connection

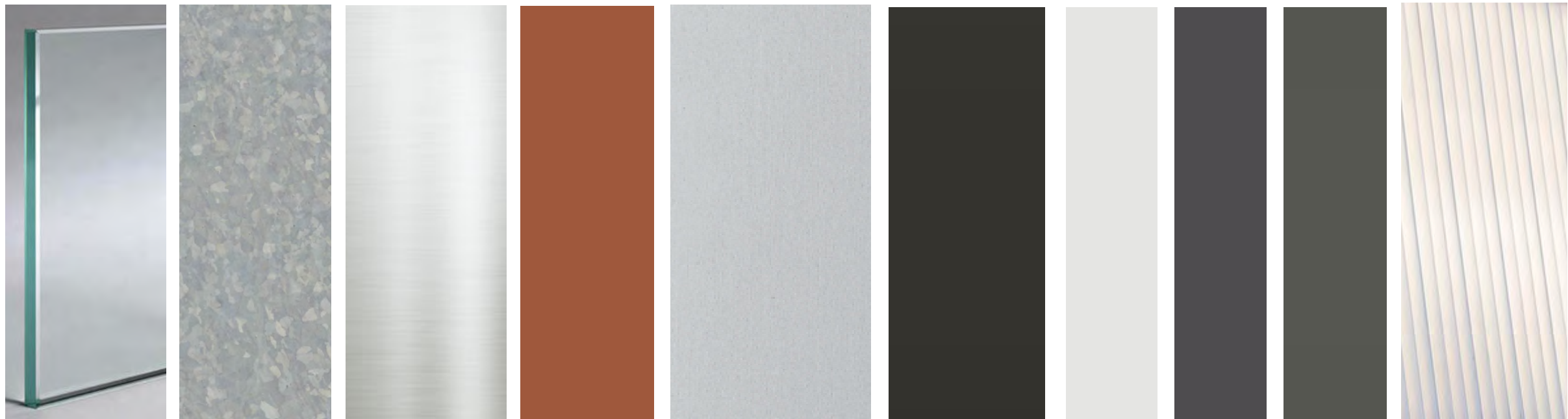


Concept Sketch



Façade

Detail of Finishes



vision glass

zincalume
spandrel

stainless steel
external duct

painted
steel 'exo
skeleton'
frame to
duct

anodised aluminium
external louvres

painted
external steel
mullion

existing
concrete
frame /
walls

existing
concrete
frame /
walls

external
window
frames,
louvres

light box roof
plant

Façade Signage Details



Atrium



Atrium

Simplified Forms

