

FULL HOUSE

Full House is a multi-generational housing typology developed in the city of Vancouver. While this particular project is a contextual response to the economic, social, and urban conditions of this specific place, Canada is bearing witness to skyrocketing real estate prices across our major urban centers and a general increase in the numbers of adult children living with their parents. In a city where the average price for a detached house is now over \$1,800,000 (over \$650,000 for condos, and over \$850,000 for townhomes), multi-generational living is the only viable home ownership option for many families.

Regardless of whether this situation is a result of choice or financial necessity, the benefits of multi-generational living are becoming widely recognized: financial support, mutual benefits for young and old through childcare, decreased physical and emotional isolation for aging grandparents, as well as emotional bonding and closeness across generations. The benefits are recognized across all generations – emotional, physical, and financial. Adult children living at home can save money while going to school or working, spending time with young children can bring purpose and meaning to the lives of older generations, while the demands of keeping up with kids – both physical and intellectual (homework) - helps them stay active and feel younger. The benefits to grandchildren includes empathy, care for elders, as well as important social role-modelling.

The project is conceived as a 5 bedroom home with a 1 bedroom laneway house. The essence of the project is the main floor pivot door – inspired by *Marcel Duchamp's Door: 11, rue Larrey* (1927) – a door that is hinged between 2 possible frames, thus modulating adjacent spaces. In this project, the device is a similar pivoting steel plate partition that can occupy three possible positions, and in each position alters the architectural programming of the suites in the house.

The life of the main house is understood as existing at any point in time through 3 basic scenarios, facilitated by the operation of *Duchamp's Door*:

- Scenario A / Two discrete dwelling units: 3 bedroom suite + 2 bedroom suite
- Scenario B / Two discrete dwelling units: 4 bedroom suite + 1 bedroom suite
- Scenario C / One large multi-generational home: 5 bedroom suite



CONTEXT

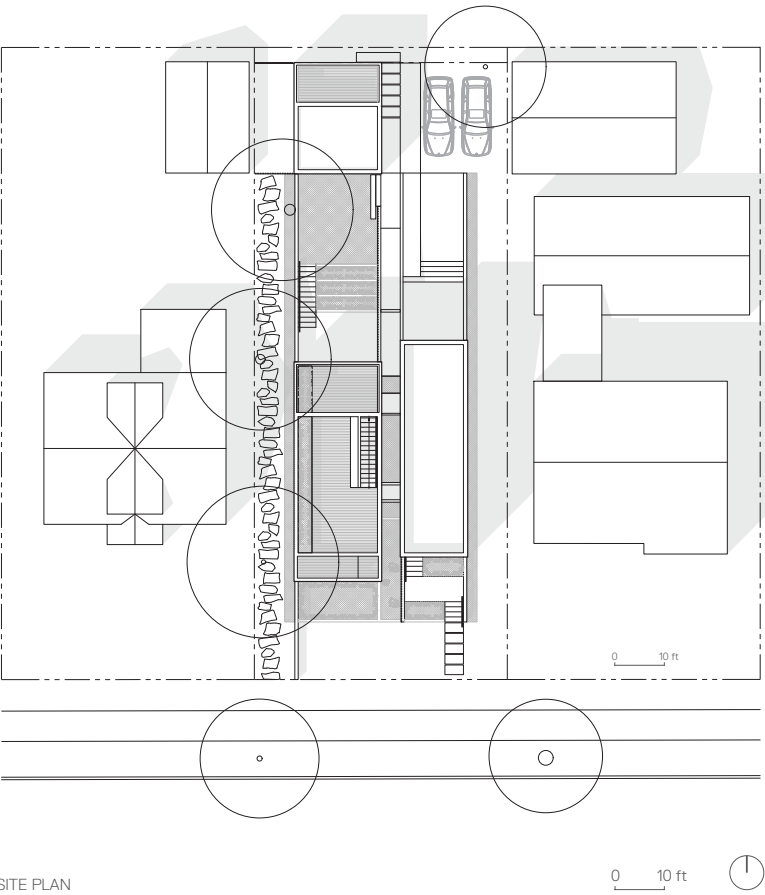
From its inception, Vancouver has been a state of mind rather than a powerful economic or urban entity.

- Lance Berelowitz *Dream City*, 2005

The urban experience of Vancouver – and in many ways the collective psychology – is embodied by the notion of Vancouverism. Although this urban planning phenomenon has come to presently be defined through a dominant typology of urban development – i.e. the tower-podium model, it’s roots extend back to both environmental and counter-cultural movements 1960’s. While most other North American cities were embracing the golden era of the automobile and urban sprawl, urban activists in Vancouver prioritized creative solutions that balanced increased density with a strong connection to the surrounding natural environment.

Vancouverism needs to now evolve from these roots to address the current problems associated with exorbitant real estate prices and the psychological challenges of high density condo living. While it was initially successful in combating urban sprawl amidst a population influx within a limited area. The next chapter of Vancouverism must deal with increased environmental considerations as well as the physical and mental health of an aging population. We must move beyond the ubiquitous tower-podium model that prioritize the commodification of housing and developer profits at the expense of community ideals, and develop new living typologies that prioritize the social, psychological, and economic well-being of Vancouver’s inhabitants.

According to the Canada 2016 Census, an increasing number of young adults aged 20-34 are living with their parents (34.75% in 2016, compared to 30.6% in 2001). Skyrocketing real estate prices across most of the nation’s major cities will only increase the financial pressures that make multi-generational living more appealing. Moreover, the high cost of both childcare and senior’s care in cities like Toronto and Vancouver, are pushing families to rethink how they live and care for both young and old members of their family. The fact that birth rates are generally declining, with single-child households on the rise, affords the opportunity for single family residences to house multiple generations of family members within traditional sized single family homes.





SCOTT MCFARLAND - FILTERING, PETER HARRISON CHANGING WATER PUMP FILTER 1990

The *Vancouver School* of conceptual or post-conceptual photography - founded by Jeff Wall, and including the work of Stan Douglas, Rodney Graham, Roy Arden, and Ken Lum – use constructed imagery to explore the social force of imagery, as well as the implicit relationship to context. Younger practitioners, including Scott McFarland, have inherited



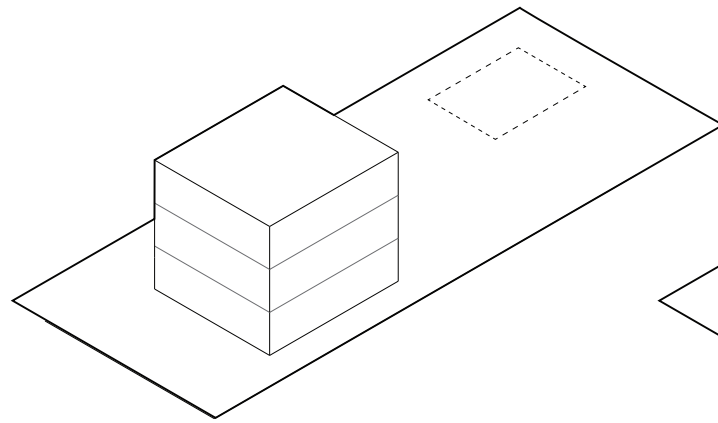
JEFF WALL - THE PINE ON THE CORNER, 1990

and expanded the post-conceptual approach, often with a heavier focus on the social and psychological aspects of landscape. The work of the Vancouver School captures – both directly and obliquely - the complex and nuanced social, psychological, and physical aspects of *Vancouverism* that are inaccessible by the blunt tools of urban planning policy.

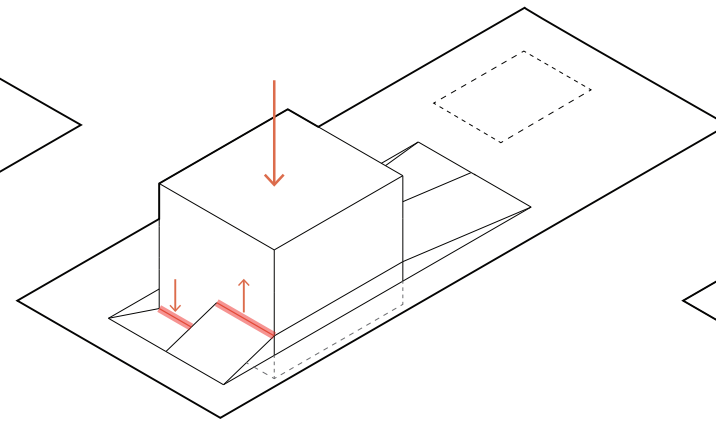


SCOTT MCFARLAND - ON THE TERRACE. JOE AND ROSALEE SEGAL COSMOS ALTROSANGUINEUS, 2004

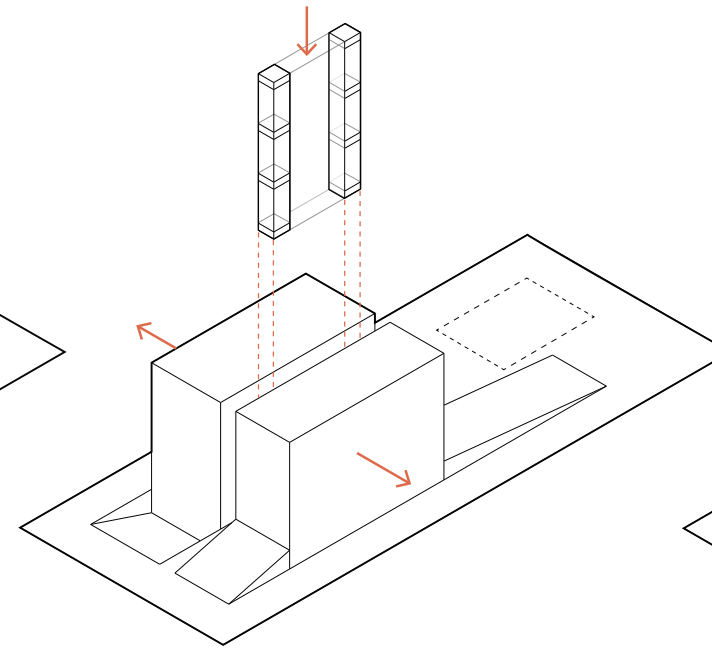
These issues of race, gender, age, place, and economics are the context through which new notions of Vancouverism must evolve and develop. In this way, prototypes for urban living that mediate the concerns of urbanism, density, nature, sustainability, economics, ethnicity can be offered.



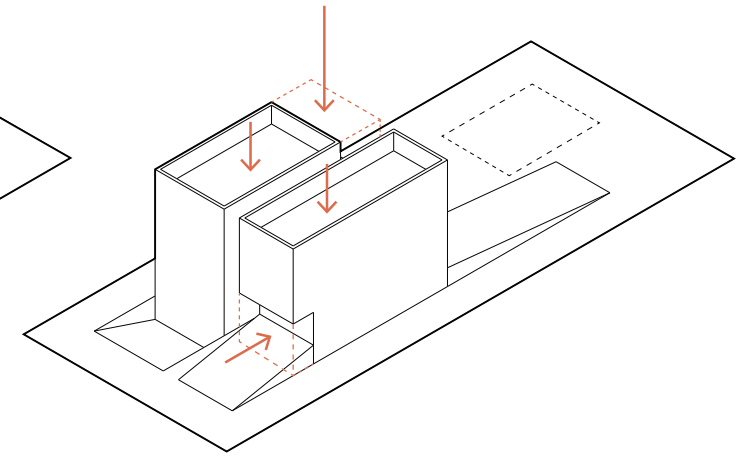
BASE VOLUME
1300 SQFT FOOTPRINT
3 STOREYS



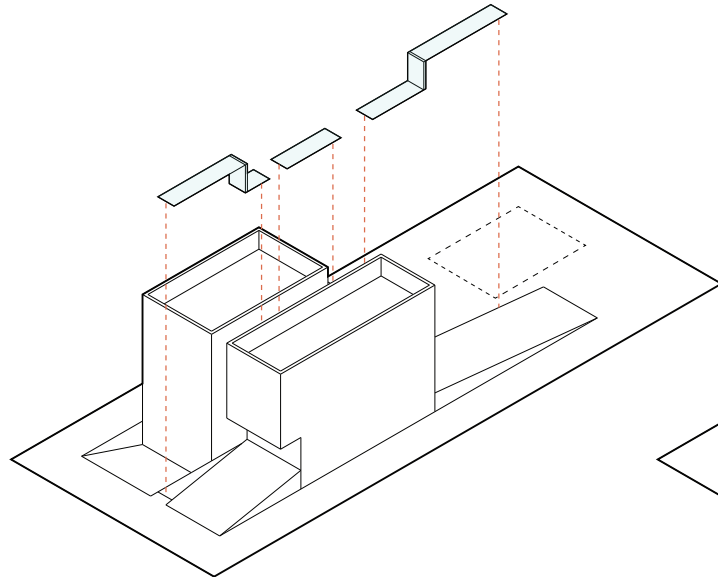
LANDSCAPE CONNECTION
PUSHING DOWN VOLUME BY 6" TO ACHIEVE 9'
CEILING HEIGHT IN GARDEN SUITE



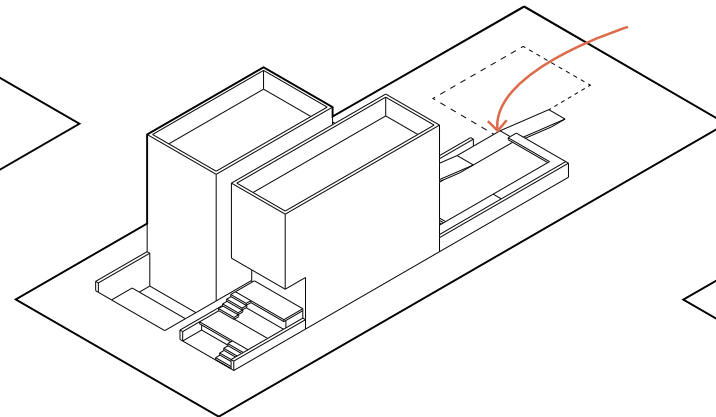
SLICE + STITCH
INCREASE NATURAL LIGHT + VENTILATION
IN INTERIOR SPACES AND CONNECTION TO NATURE



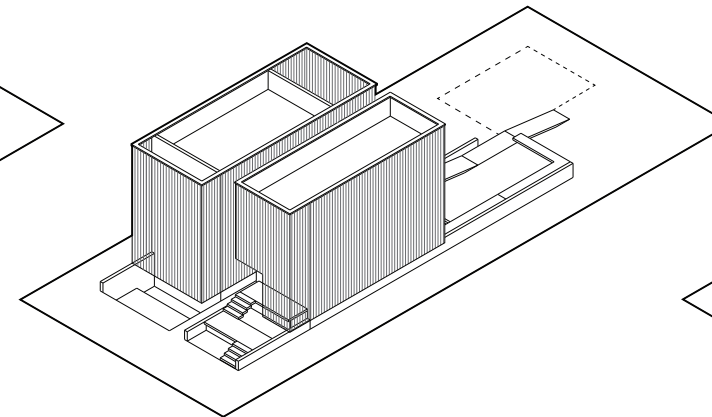
EXTERIOR SUBTRACTION
CARVING SPACES FOR EXTERIOR
LIVING AREAS - PUBLIC AND PRIVATE SPACES



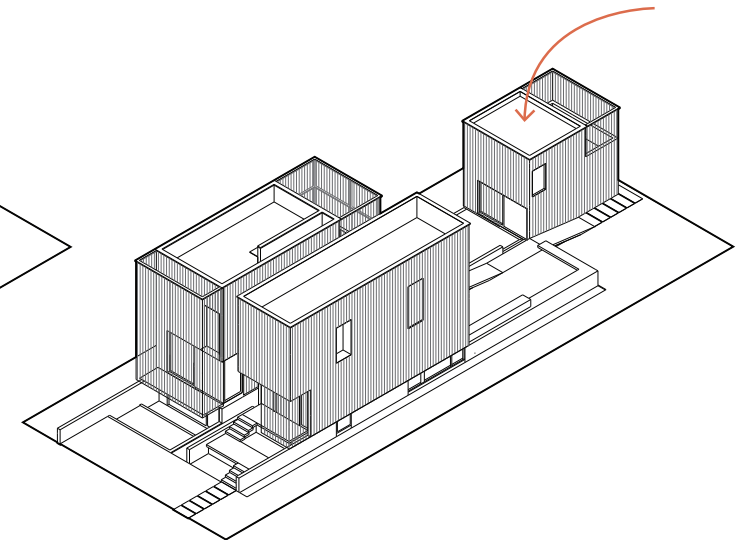
WATER
EXTENSION OF WATER FEATURE
THROUGH SITE



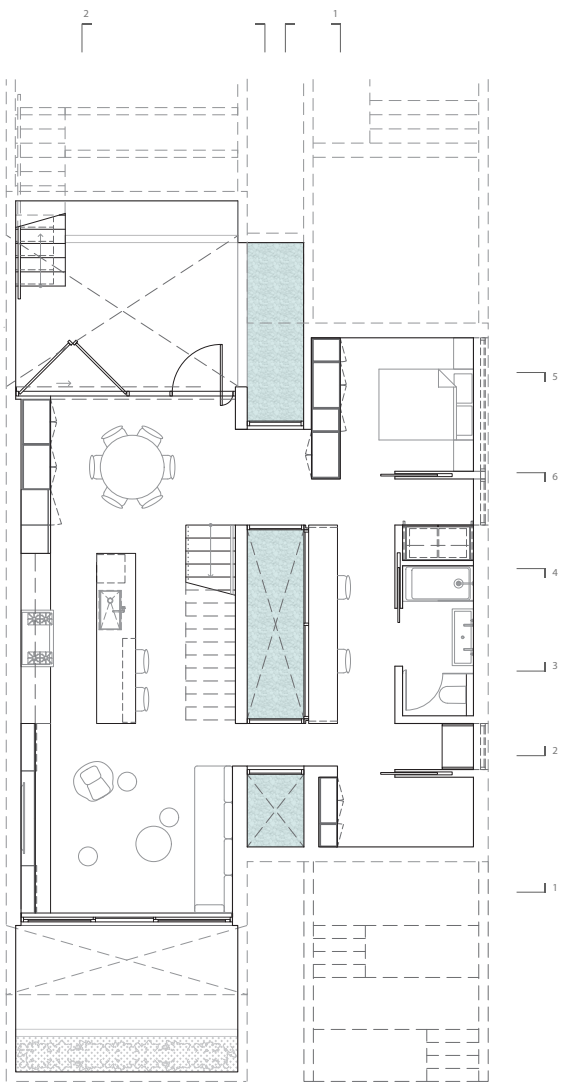
ACCESSIBILITY
ADDITION OF RAMP FOR
AGING PARENTS



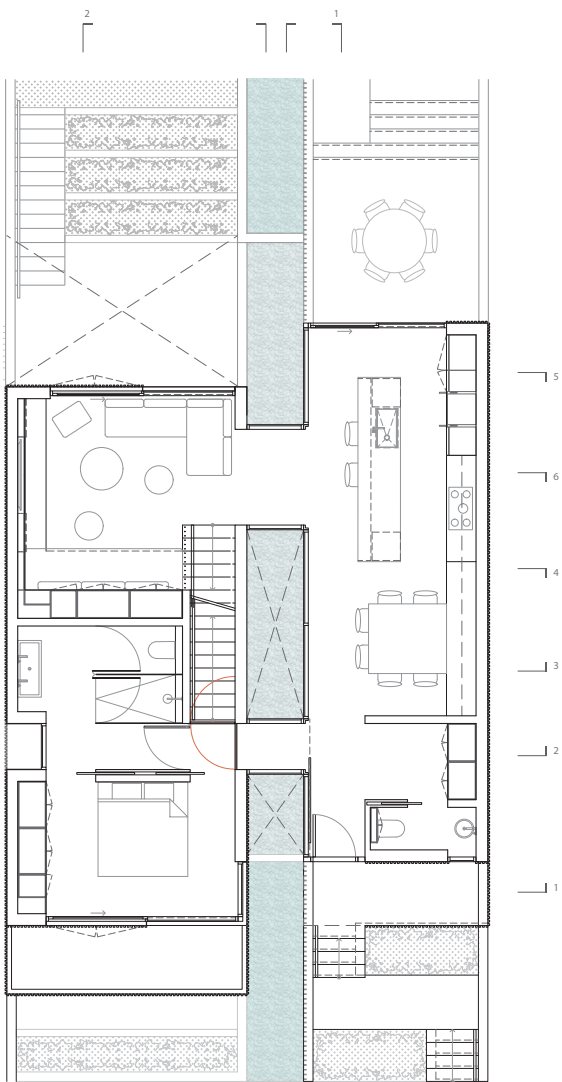
FACADE
ADDITION OF SCREEN ON FACADE
TO ADDRESS PRIVACY



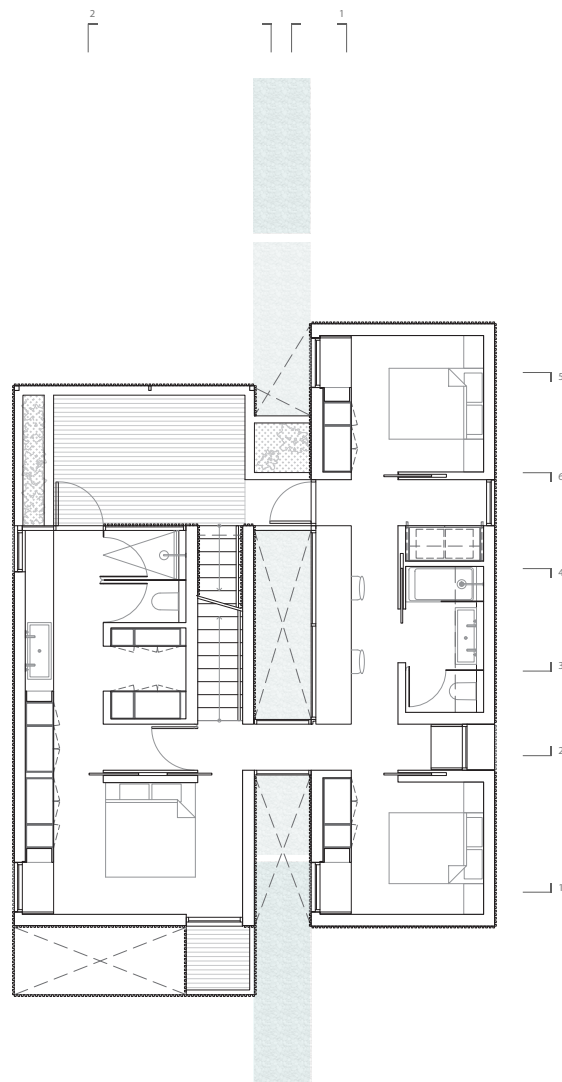
LANEWAY HOUSE
ADDITION OF LANEWAY HOUSE TO INCREASE TOTAL
NUMBER OF POTENTIAL INDEPENDENT SUITES TO 3



BASEMENT PLAN



MAIN FLOOR PLAN



UPPER FLOOR PLAN

0 5 ft



ARCHITECTURAL PROGRAM SCENARIOS

The project is conceived as a 5 bedroom home with a 1 bedroom laneway house. The crux of the project is the main floor pivot door – inspired by *Marcel Duchamp’s Door: 11, rue Larrey* (1927) – a door that is hinged between 2 possible frames, thus modulating adjacent spaces. In this project the device is a similar pivoting steel plate partition that can occupy three possible positions, and in each position alters the architectural programming of the suites in the house.

Scenario A / Two discrete dwelling units: 3 bedroom suite + 2 bedroom suite

The young couple will pay the mortgage (construction cost of the house) with the assistance of rental income from both the 2 bedroom garden suite and 1 bedroom laneway house. The husband’s parents live in a large home relatively close to the site, but are planning to downsize in the next few years and move into the garden suite (Scenario B) – allowing them to be close to the new grandchildren and alleviate the burden and expense of maintaining a large house with only two occupants. During this scenario, the garden suite is a discrete dwelling unit with an understanding that the front yard sunken patio is the associated exterior territory. Conversely, the backyard is the outside territory of the other suite, which occupies the main and upper floors (3 bedrooms).

Scenario B / Two discrete dwelling units: 4 bedroom suite + 1 bedroom suite

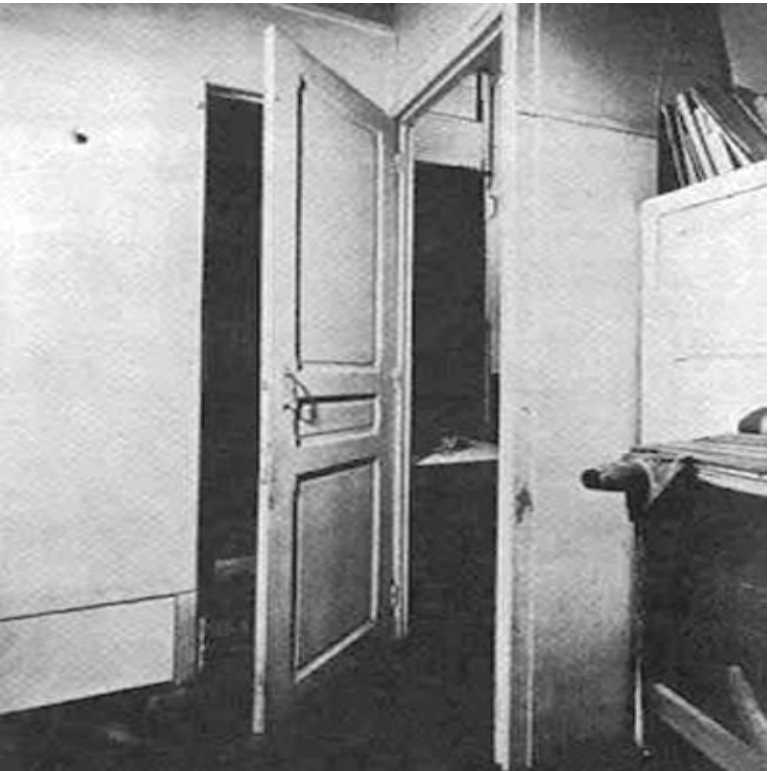
The child – now in his/her mid-twenties has either never left the house, or is ‘boomerang-ing’ back into the house upon return from university. The aging grandparents, now in their 80’s, maintain their same bedroom, which now becomes associated with the upper floor suite. The child experiences the benefits of multi-generational living, while also having a discrete 1 bedroom suite – eventually with his or her spouse. In this scenario, a second child can still live on the property in the laneway house.

Scenario C / One large multi-generational home: 5 bedroom suite

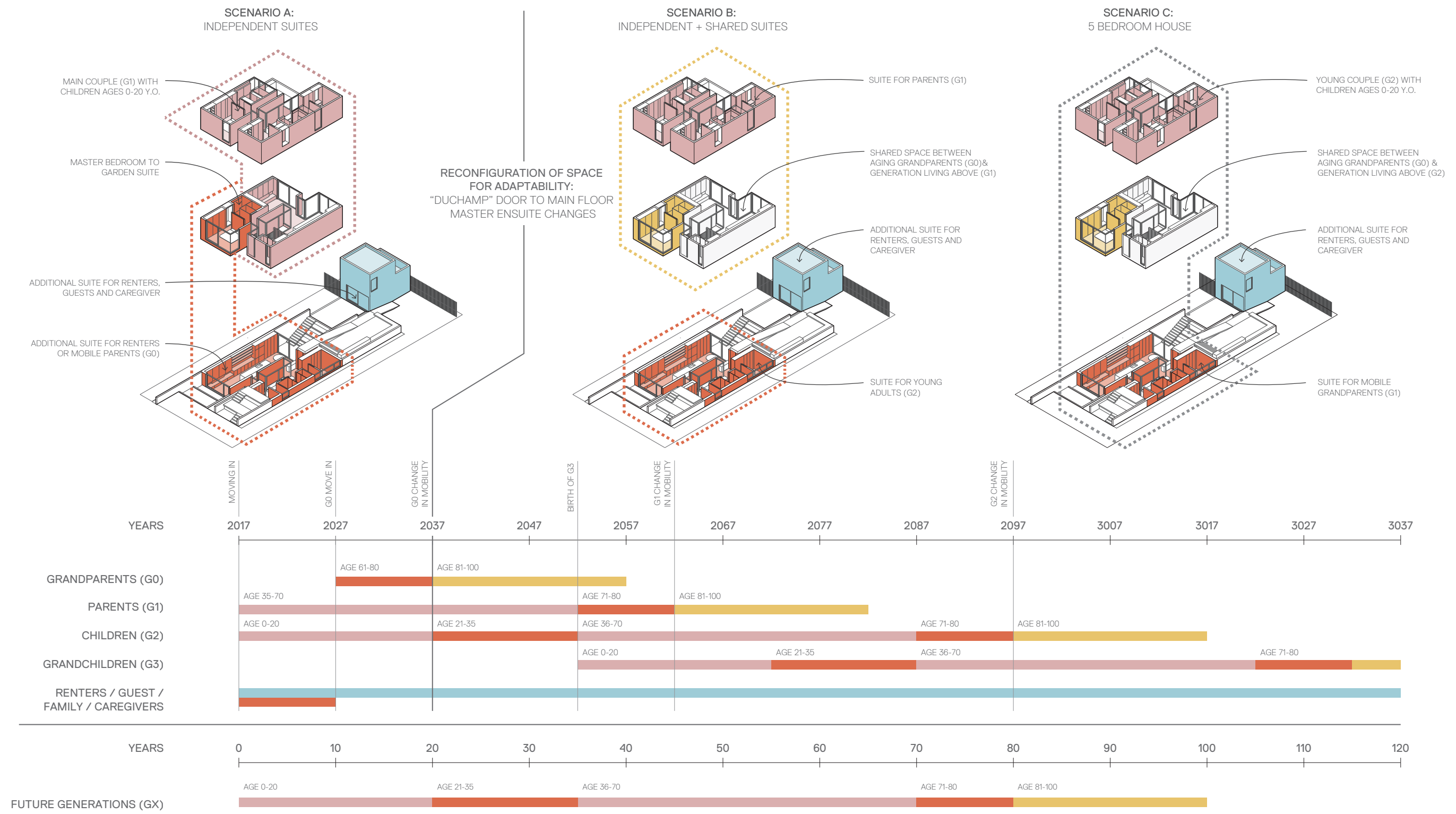
The child and his/her spouse are now ready to have a family, and as such, require additional space. The young couple moves to the upper floor suite with their baby (and eventually perhaps also second child), displacing the parents down to the garden suite (i.e. this is the original young couple, now downsizing), while the grandparents (now great-grandparents) continue to occupy their master suite on the main floor of the house. This situation affords ‘aging in place’ for the great-grandparents, with an ADA accessible suite, and the house operates as a single 5 bedroom multi-generational house.

When the great-grandparents ultimately pass on, the life cycle of the house loops back to Scenario A and the cycle begins again. Of course, this cycling is only one of a multitude of possible progressions that can be accommodated by the programmatic reconfiguration.

The architectural device - *Duchamp’s Door* - can be used to fluidly adjust the configuration of the house between either of the three scenarios at any time. While the basic programmatic aspects of this typology are not a radical departure from traditional single family residences, it is the scenario-based approach that is innovative – the relationship amongst the spaces that allows the public and private domestic spaces to be recombined in multiple ways.

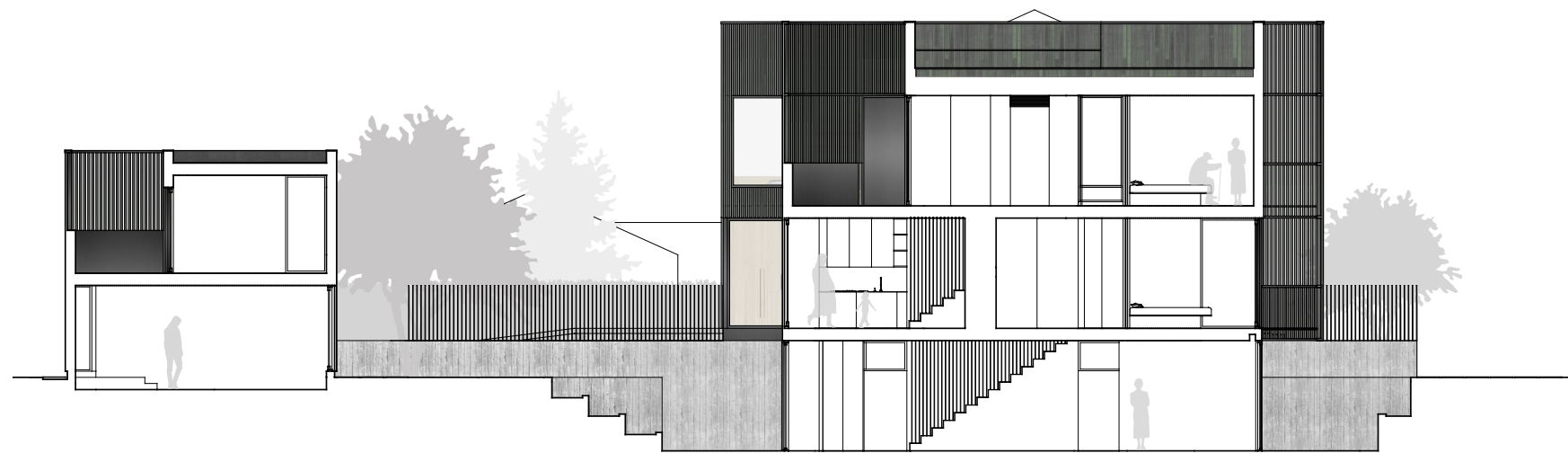


MARCEL DUCHAMP - DOOR, 11 RUE LARREY, 1927 - *DUCHAMP’S DOOR*

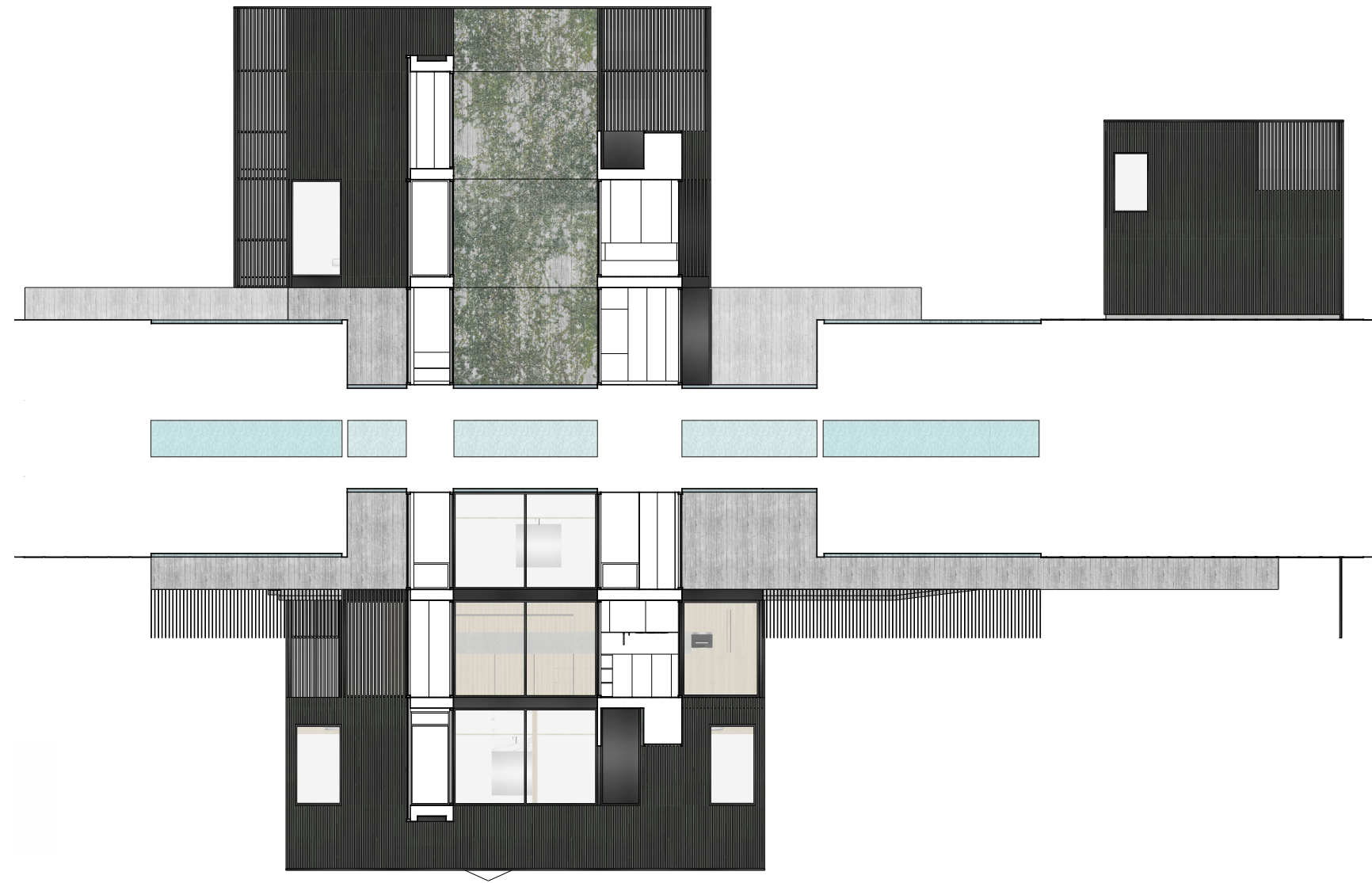




LONGITUDINAL SECTION 1



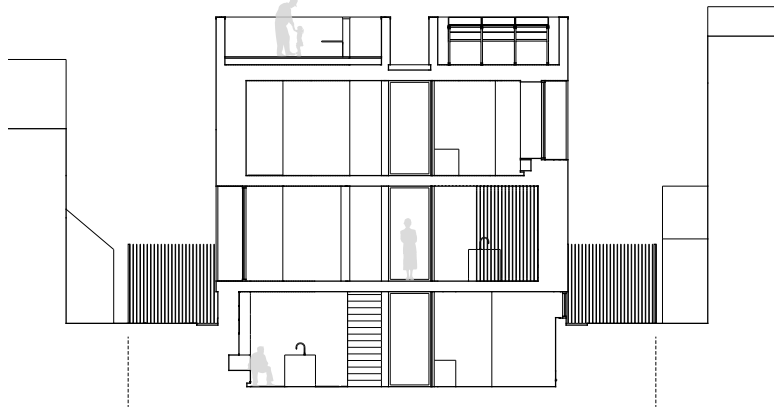
LONGITUDINAL SECTION 2



LONGITUDINAL SECTION DIAGRAMS



CROSS SECTION 1



CROSS SECTION 2



CROSS SECTION 3



CROSS SECTION 4



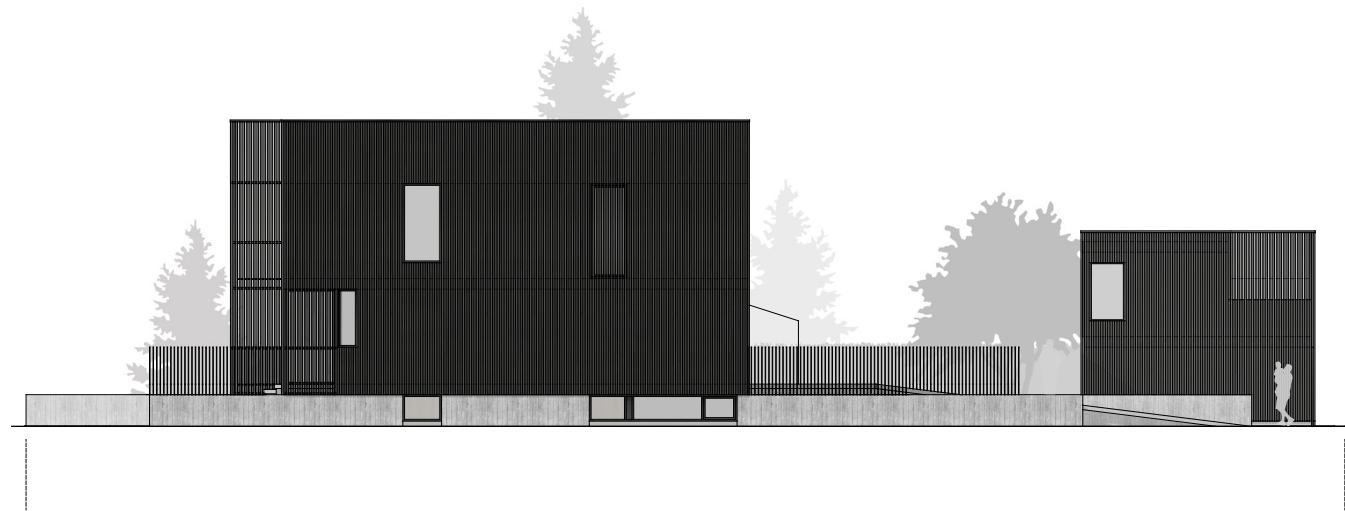
CROSS SECTION 5



CROSS SECTION 6



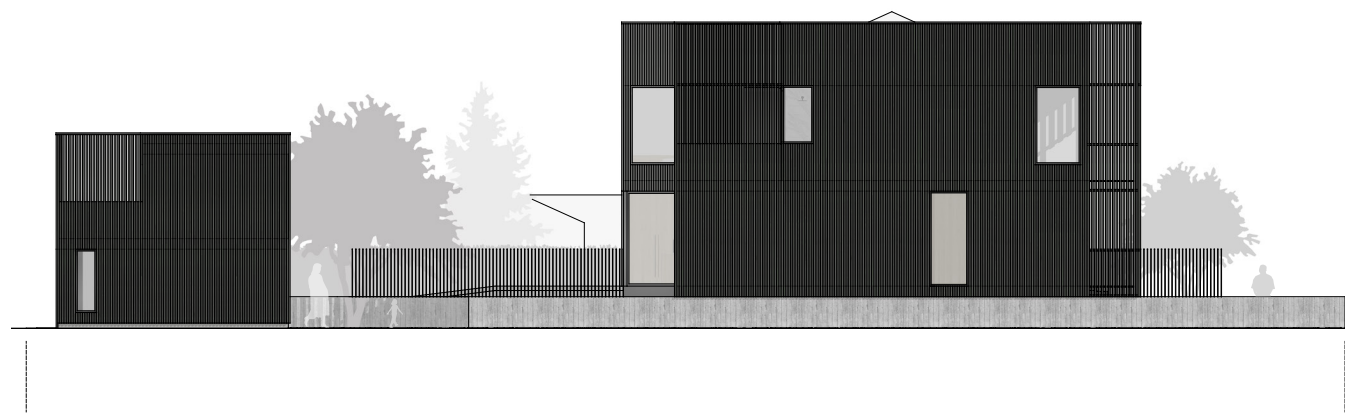
NORTH ELEVATION



EAST ELEVATION



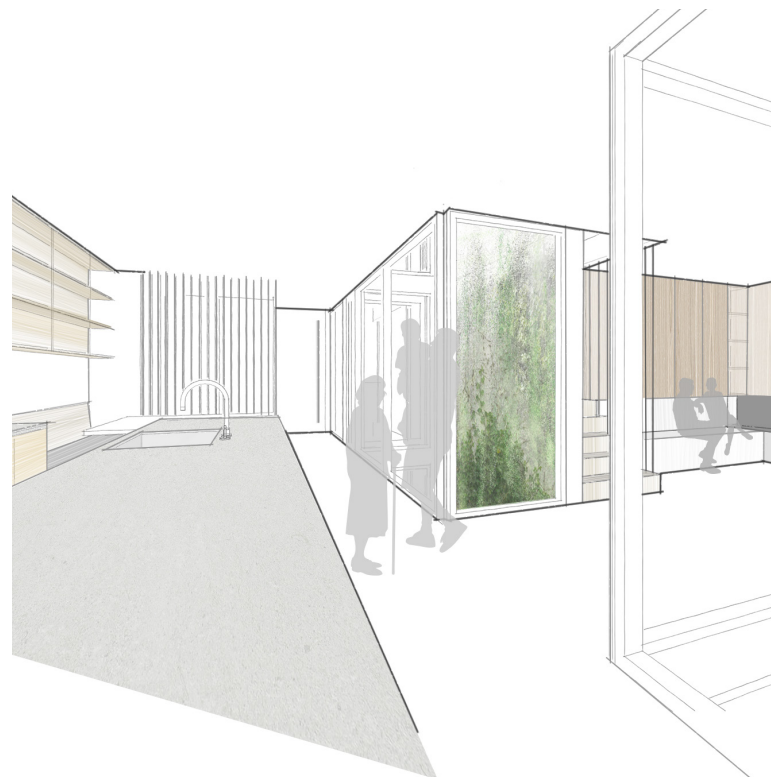
SOUTH ELEVATION



WEST ELEVATION



LOWER FLOOR VIGNETTE



MAIN FLOOR VIGNETTE



UPPER FLOOR VIGNETTE