

# redefining openbuilding\_



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adaptable intergenerational living:  
project programming

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# introduction

## intergenerational defined

Inter-generational living looks at creating a third type of housing option, particularly for people in their 50's-60's who want to avoid the drawbacks of either living alone or exclusively among other seniors. People of all ages live together in an apartment setting in individual units, which are generally supplemented by community and outdoor spaces that foster interaction between residents. The notion of inter-generational living does require a willingness of residents to embrace neighborly cooperation and coexistence.

### *community benefits*

- \_promotes interaction between multiple generations, thus closing the widening gap between youth and older individuals
- \_linking of cultures, values, etc. as the willingness to coexist in this housing type shows similar values of caring, support, and respect
- \_creation of a larger family unit lends itself to become a support system for families without immediate relatives, or who simply need assistance

### *benefits for older adults*

- \_seniors remain an integral part of the community, and thus can contribute and stay involved with society in meaningful ways
- \_improved living situation (in lieu of nursing homes fore example)
- \_improved self-esteem
- \_ability to continue to improve skill development, and learn from a younger generation more adept at certain things
- \_opportunities to meet and interact with other caring and able bodied seniors
- \_The chance to share life experiences and knowledge with a younger, more naive generation

### *benefits for youth*

- \_development of a healthy attitude toward the notion of aging by being exposed to older generations on a daily basis
- \_improved self-esteem
- \_opportunity to live in a housing situation with strong sense of community and social responsibility
- \_breaking down stereotypes about older generations and giving a more informed understanding of what it means to age
- \_social, emotional, etc. stability lent by someone older and more experienced (as a parent might)



# introduction



## baby boomers

### *what is a generation?*

\_an identifiable group that shares birth years, age, location, and significant life events at critical developmental stages

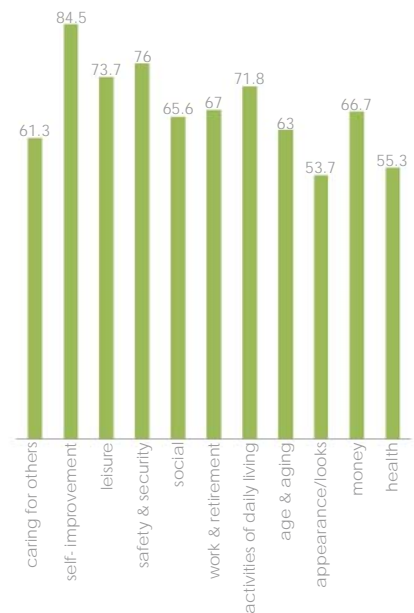
### *what is a baby boomer?*

\_people born between 1946-1964  
\_78.2 million americans are considered baby boomers  
\_the population that is now being faced with aging and dealing with latter half of life

### *characteristics of baby boomers*

\_grew up in a two-parent household  
\_idealistic  
\_optimistic  
\_look for opportunities and progress  
  
\_self-absorbed  
\_no respect for authority, social institutions  
\_prefers self- gratification  
\_motivators:  
-money  
-"corner office"  
-self-realization

% of boomers concerned with:



1983-2001\_new boomers  
1965-1982\_generation x

### **1946-1964\_baby boomers**

1929-1945\_lucky few  
1909-1928\_good warriors  
1890-1908\_hard timers  
1871-1889\_new worlders

# introduction

## missionstatement

“Provide innovative dwelling units that foster the notions of **choice** and **independence**, while stimulating **social interaction** in order to bridge the widening disconnect between young and older generations in a singular environment incorporating all aspects of **healthy living**.”

## generalgoals

### *class design guidelines:*

- \_ circular path within dwelling
- \_ circular path throughout building
- \_ daylighting from two directions within dwelling
- \_ social spaces at the center of the building
- \_ grouping entrance doors-community at all levels of scale
- \_ universal design/ADA accessibility
- \_ layers of space/buffer zones
- \_ bringing the world into the building
- \_ third places
- \_ “lingering realms” in the circulation spaces
- \_ activity space

### *personal design guidelines:*

- \_ create dwelling units that can be altered using a kit-of-parts readily designed
  - customized by individual tenants to create space catered to their needs
- \_ localized utilitarian cores to free up the plan
- \_ moveable, freestanding “partition walls”
- \_ disentangled parts of building (structure, partition, furnishing, etc.)
- \_ employ sustainability by means of ease in adaptability for future use
- \_ mix-use building services catered to the client personality profile

# research

## designabstract

The ideas of choice and personalized living; that people carry an inherent emotional connection with their physical environment, has forever been at the core of American homeowner ideology (Marcus 2006). "Open building architecture", an approach to design that increases the **variety, flexibility and quality of space**, ensures the idea of choice and personalization in living for the inhabitant (Nascimento 2013). The notion of applying a singular scheme to the living needs of the greater whole can no longer be an acceptable means of designing. In the sector of healthcare (hospitals, nursing homes, etc.) this similar quality of homogenized living conditions, void of any personal identity, has come to be all too familiar (Swensson 2012). Through the implementation of open building architecture, one can break free of the cookie cutter approach to design and begin to disentangle the specific parts of a building, thus enabling **broader consumer choice** in laying out, equipping, and furnishing space (Kendall 2002). In regards to inter-generational living, the aspect of adapting to changing needs over time is critical in order to adequately serve the needs of our aging population, and by means of open building architecture, one can begin to focus design on the user/inhabitant. The users, then, become recognized as the decision making agents, and in turn the architecture becomes **more suitable to the individual's** needs (Nascimento 2013). Thus, the purpose of this project is to investigate the potential benefits of open building architecture in the design of inter-generational living, with the goal being to sustain choice, personalization, and independence for its inhabitants.

Key terms: open building architecture, choice, personalization, independence, alteration, change

## openbuilding as healing space

### *personalization*

\_people are inherently different, and have different interests/preferences

\_the spaces people find most "healing" are the spaces they create for themselves

\_it's natural for people to want to modify space to make it their own

-i.e. the college dorm room

\_spaces designed for the greater whole tend to be void of personal connection

\_the ability to have choice in life is healthy and necessary

### *renewal*

\_renewal or rebirth is a natural occurrence

\_we as humans, nature, etc. are all reborn in essence

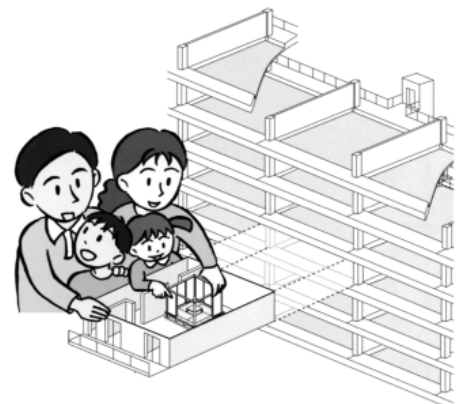
\_people inherently renew/improve themselves; create improved and better versions

-in essence healing themselves

\_spaces that are reborn can be invigorating and healing

-change is good

\_with the ability to renew space, comes the ability to make it more healing and conducive at a given time



look how happy they are because they get to customize their home!



the notion of renewal or rebirth is inherent to the life cycle

# openbuilding architecture

## background

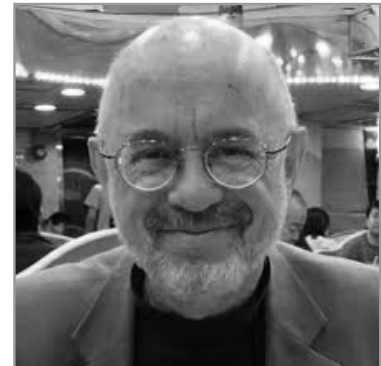
Originally established in the 1960's by N. John Habraken (and later furthered by Dr. Stephen Kendall), open building architecture looks at an alternative approach to the design of housing that is already very much prevalent in the commercial/retail sector.

Open building is a new approach to design, financing, construction, fit-out, and management of residential buildings. Closely linked to the idea of support and infill, OB disentangles the various parts of a building (technical systems, infill, furniture, etc.) and creates various levels upon which change can occur. OB recognizes that different parts of buildings have different life spans, and designs in a manner that is conducive to changing said parts out.

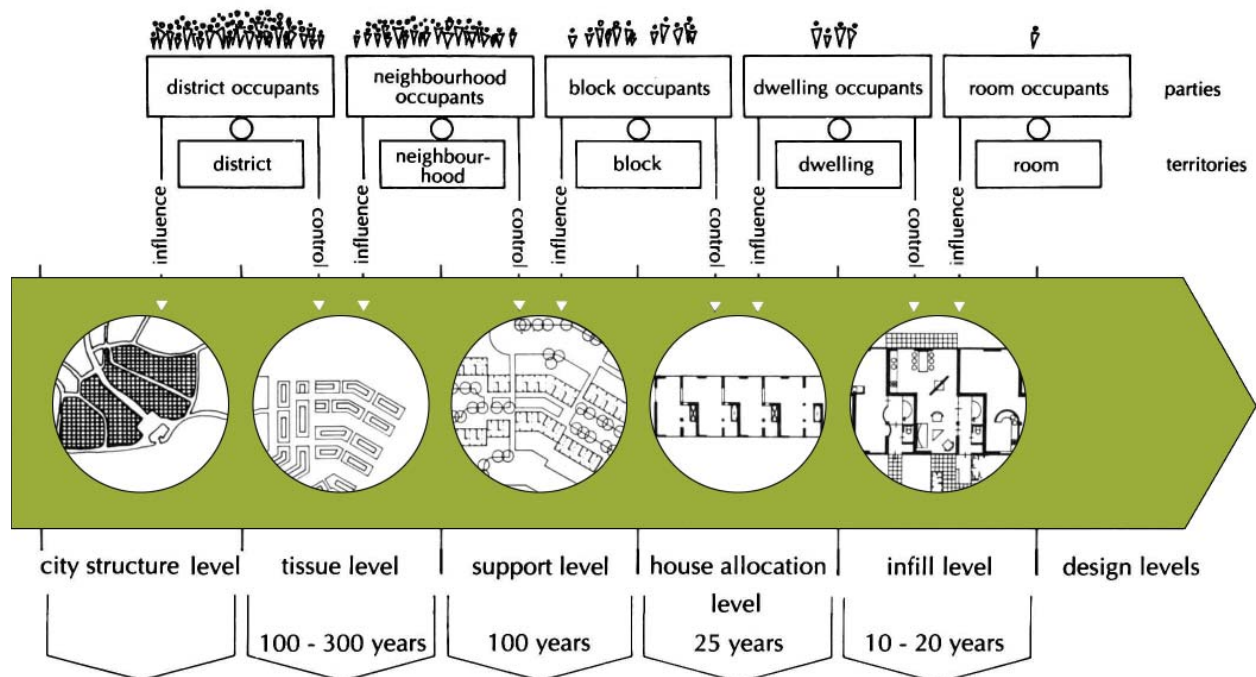
Just as critical as the notions of change and renewal is the idea that the occupant now becomes the decision making agent, and dictates for themselves what a residence might look like (similar to store owners outfitting a space for their shop). In turn, choice becomes as crucial an aspect of OB as change.



N. John Habraken



Dr. Stephen Kendall

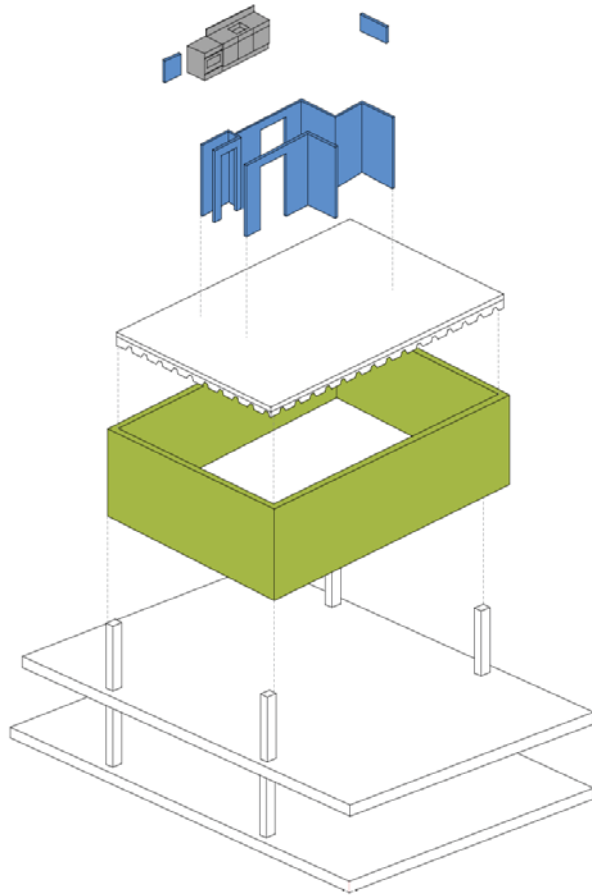




# openbuilding architecture

habraken | kendall guidelines

*a number of different, but related ideas about the making of environment*



\_the idea of distinct levels of intervention in the built environment , such as those represented by "support" and 'infill", or by urban design and architecture

\_the idea that users/inhabitants may make design decisions as well

\_the idea that, more generally, designing is a process with multiple participants also including different kinds of professionals

\_the idea that the interface between technical systems allows for the replacement of one system with another performing the same function

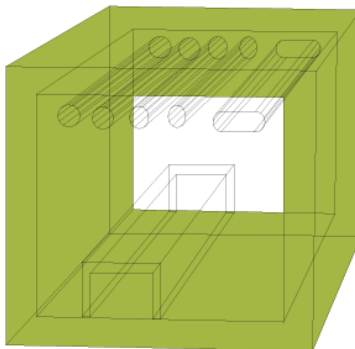
\_the idea that built environment is in constant transformation and change must be recognized and understood

\_the idea that built environment is the product of an ongoing, never ending, design process in which environment transforms part by part

(50-100 years)

## UNCHANGABLE

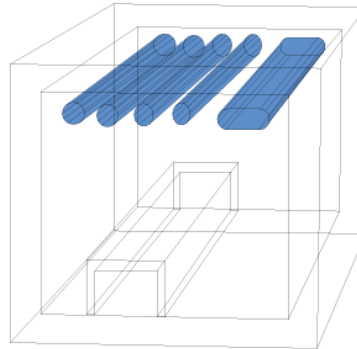
- \_site development
- \_supporting structure
- \_building envelope



(15-50 years)

## ADJUSTABLE

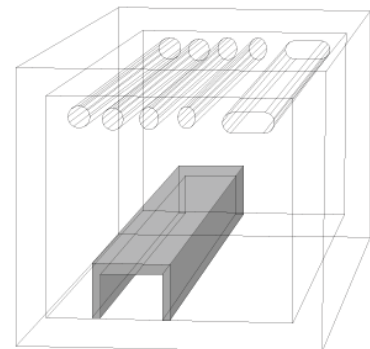
- \_indoor walls
- \_ceilings & floors
- \_fixed installations



(5-15 years)

## CHANGEABLE

- \_devices
- \_equipment
- \_furnishings



# openbuilding architecture

## levelscontrol

\_recognize different parts of the building with different life cycles

\_separate levels with different degrees of durability

\_building functions change more rapidly than the building configuration (structure)

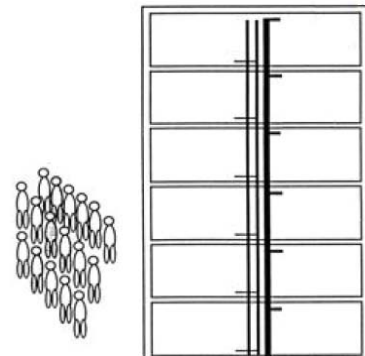
\_built environment should be divided into three levels of decision making:

- urban fabric or tissue
- base building or support
- fit out or infill

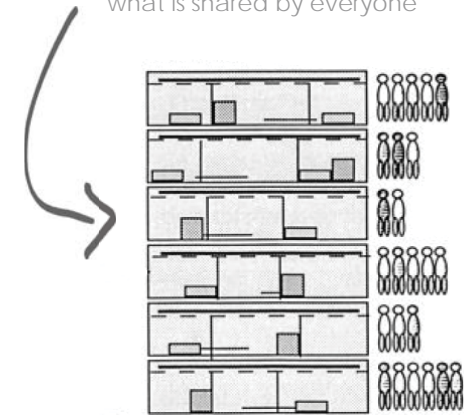
\_the infill may be determined for each individual space without affecting the building structure

\_buildings can be simplified to six main parts:

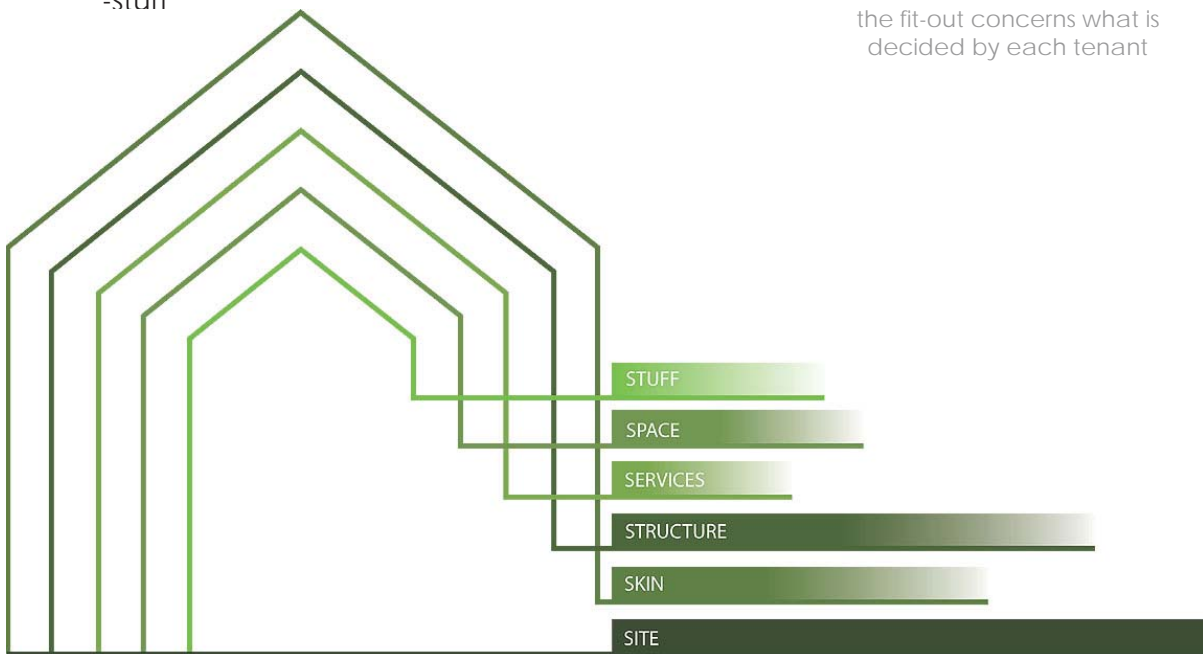
- site
- skin
- structure
- services
- space
- stuff



the base building concerns what is shared by everyone



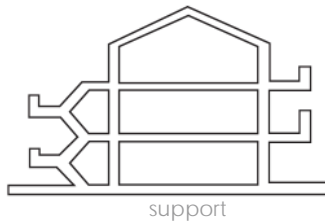
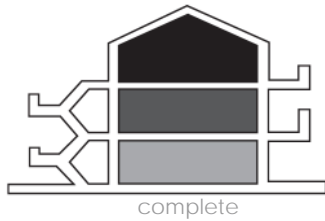
the fit-out concerns what is decided by each tenant



# openbuilding architecture

## Careful considerations

*Careful considerations that need to be considered for building success*



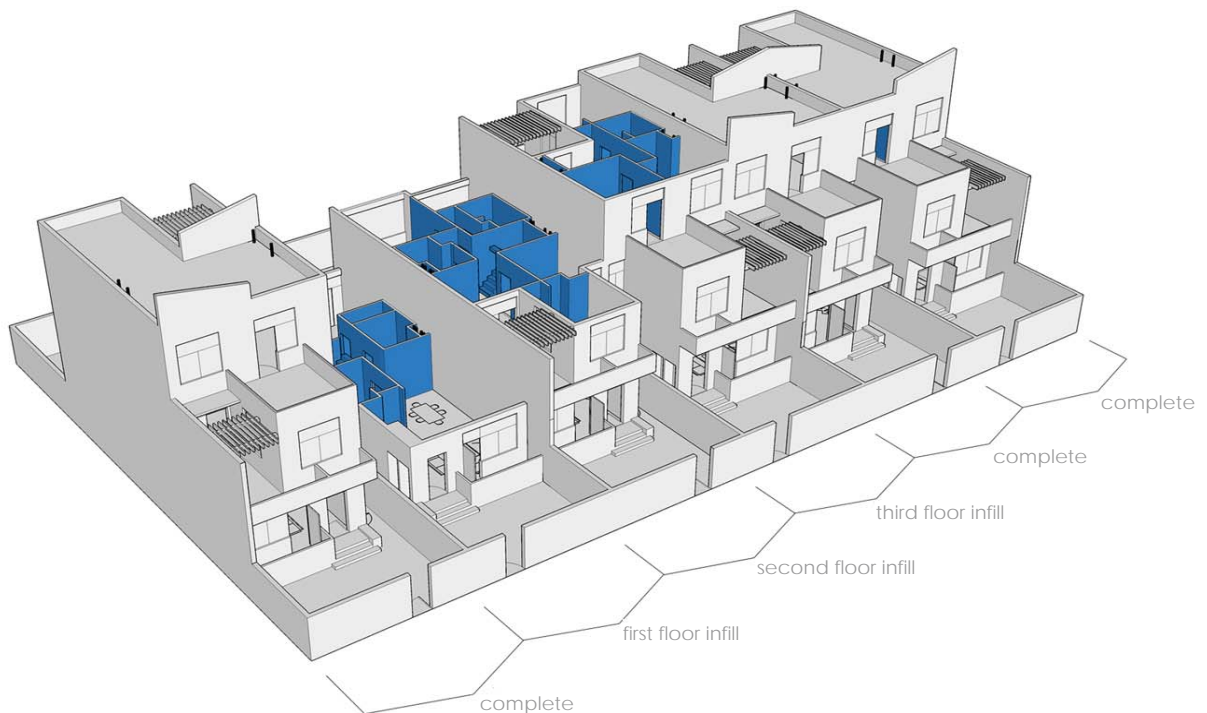
\_structure within dwelling units in the form of columns can permit use of light weight partitions, but large floor elements supported by heavy wall elements is more ideal/

\_walls between dwellings should be more substantial

\_installation should take into account replacement of things such as systems of energy, electricity, garbage, sewage, etc.

\_it is important to consider the operation and maintenance of the building once completed throughout the design process

\_considerations must be taken to the replacement or vulnerability of permanent aspects of the building that may deteriorate with changes occurring



“How do we design the built environment to support both stability - in respect to long term community interests - and change - in respect to individual preferences? ”

# casestudy

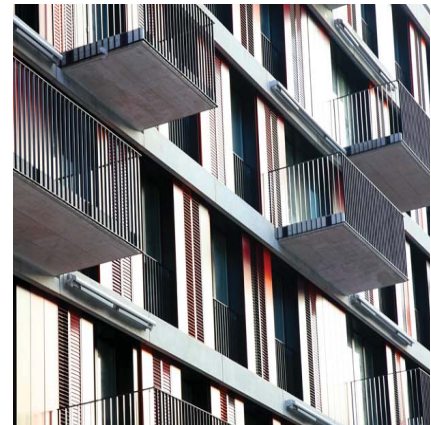
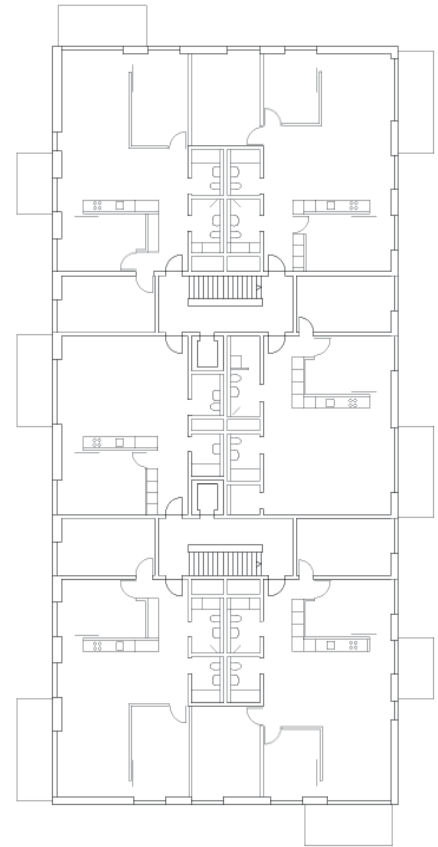
## eichgutstrasse, winterthur

architect: vera gloor

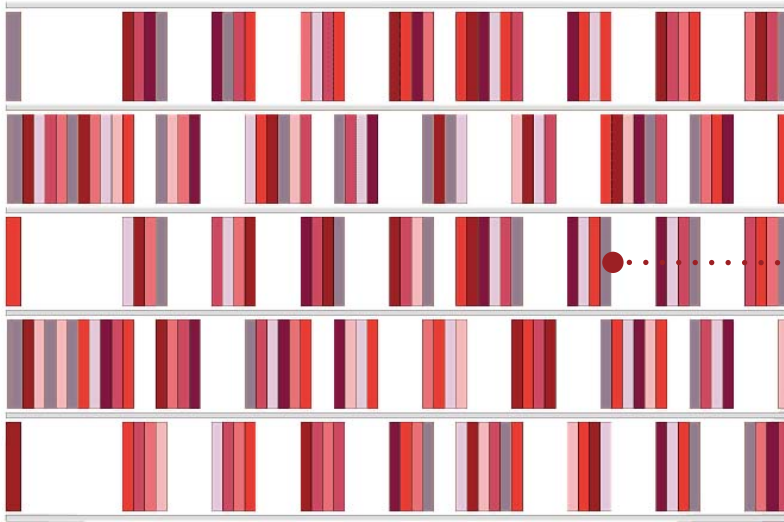
location: winterthur, switzerland

completion: 2008

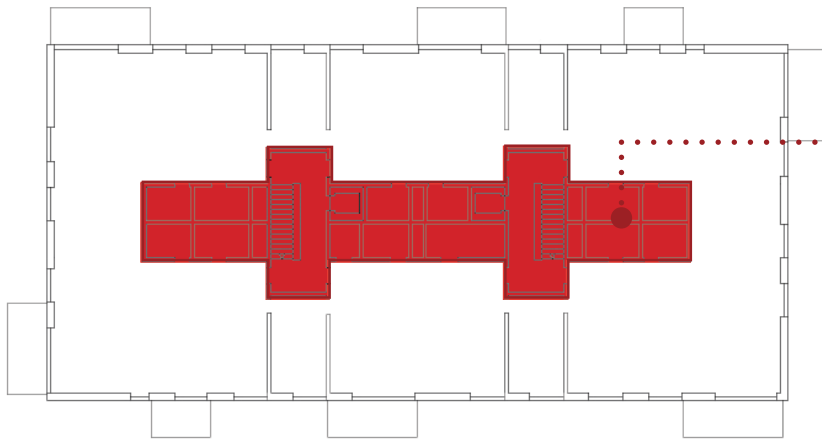
This project looks at centralizing the utilitarian aspects of the building centrally, freeing up the entirety of the plan within units. The modifiable aspects of the design are expressed as less permanent, and in doing so make the space feel more continuous and open. Rooms placed within the unit are designed with two doors/openings as to lend the space greater flexibility, while also maintaining circular circulation throughout the unit. The facade of the project is treated with the same dynamism and "change" that the interior is, expressing a sort of modifiable quality. Moveable shading devices allow the facade to be constantly changing, expressing on the exterior what the entirety of the building is about - adaptability.



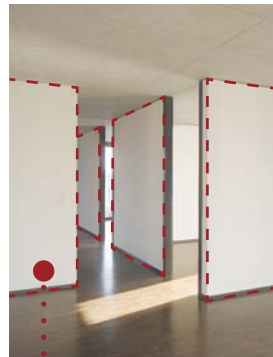
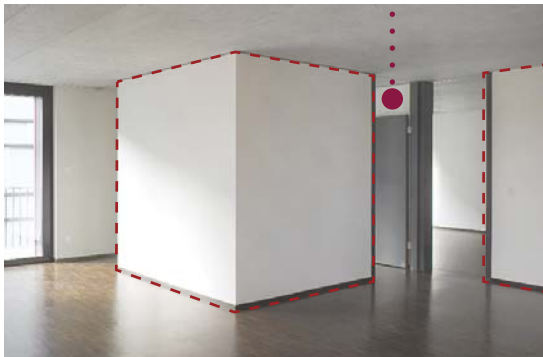
# casestudy



The exterior cladding system has a dynamic, changing appearance via color, while also being able to adapt for shading needs of the users.



A centralized core houses all of the bathrooms/circulation within the building; this aids in simplifying plumbing chases, mechanical, etc. and allows free, open spaces in the unit.



Glass tops to the door allow for spatial continuity and a more open feel to the space.

Moveable walls are constructed with finished edges for durability; this quality helps create a sense of spatial continuity and adaptability.

# casestudy

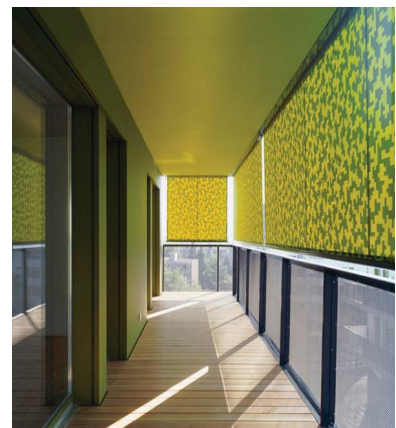
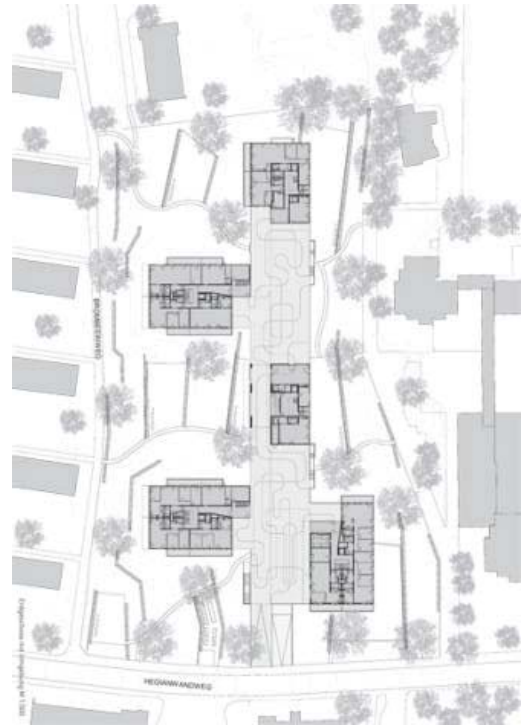
## hegianwandweg

architect: EM2N

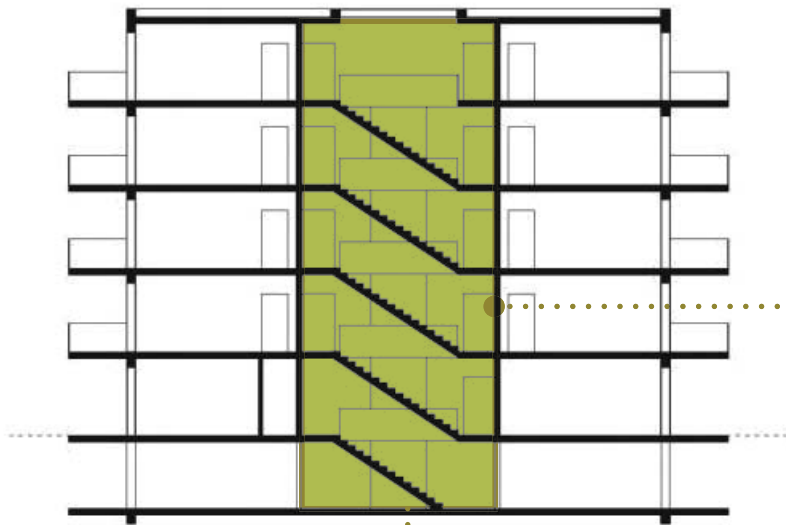
location: zurich, switzerland

completion: 2003

This project separates the apartments into five "houses" connects externally by a large circulation route. Each building has a central structural and utilitarian core, where all of the vertical circulation is also located. By using a structural core, the apartment dwellings are left free and open to be outfitted as users see fit. A co-operative society has been set up to address the possibilities of changing unit floor plans, thus maintaining some control and process over the deconstruction of one layout and construction of another. The project is located in close proximity to housing for the elderly, as well as schools, sports facilities and a city center.

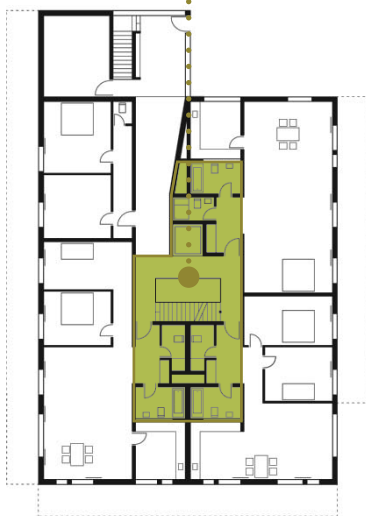


# casestudy

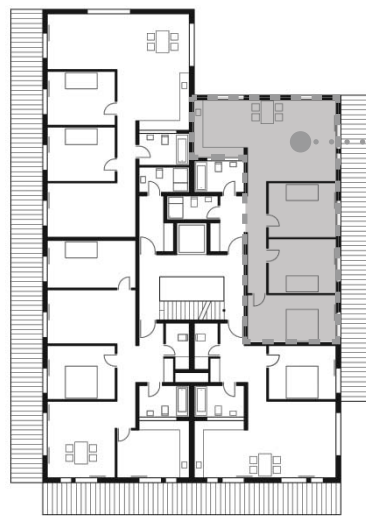


Cross section

a central circulation/utilitarian/structural core gives true freedom in the layout of the dwelling units (unobstructed by columns and chase walls).

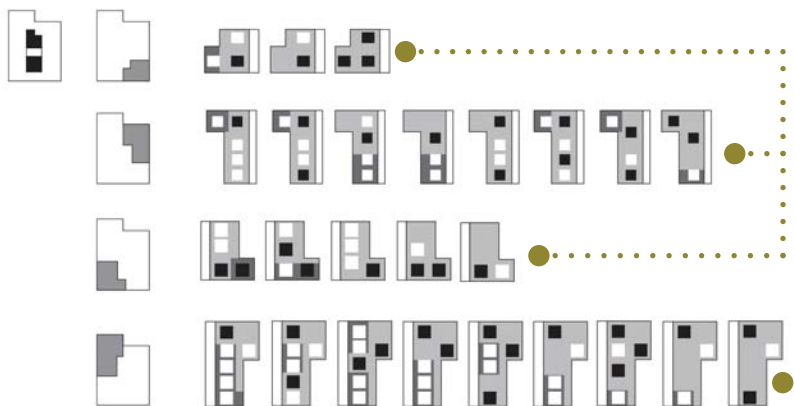


Ground floor



Typical floor plan

All dwelling units in the project occupy a corner condition, which not only makes for a more pleasant space, but also a wider variety of arrangements as opposed to a long, narrow space.



25 predetermined examples of the variability in plan help make clear the potential an owner has in changing layout based on demand and new or existing needs.

# casestudy

## palladiumflat

architect: johannes kappler architekten

location: groningen, netherlands

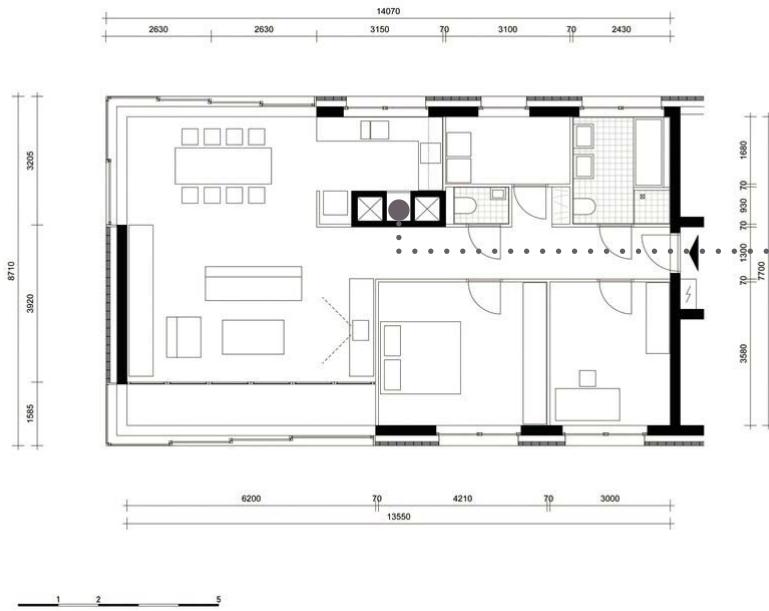
completion: 2006

This project looks at creating a new housing scheme for 10,000 residents, as part of a Netherlands exhibition. The building's design aims to provide life-long housing that is adaptable to changing needs of the tenants. By utilizing such a thin form, the structure of the building is able to be pushed to the exterior, and the interior remains relatively barrier free. Compact plumbing chases have been placed within the apartment, which allows the designer to essentially "plug-in" to said chases and design a kitchen or bathroom around that. The vertical circulation and other utilitarian functions are centrally allocated to further aid in freeing up the plan inside the unit.

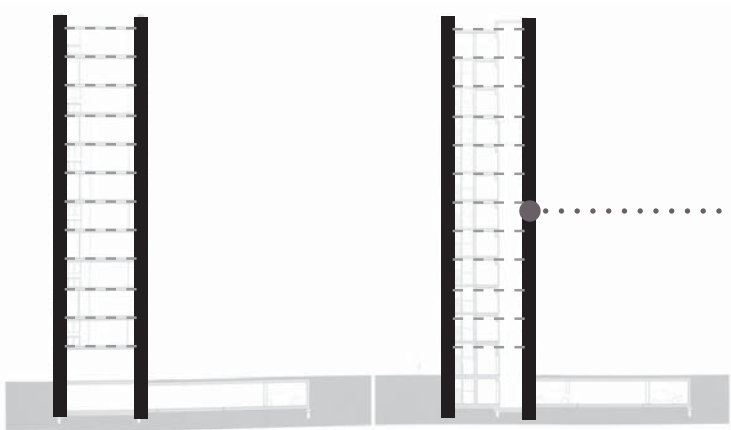




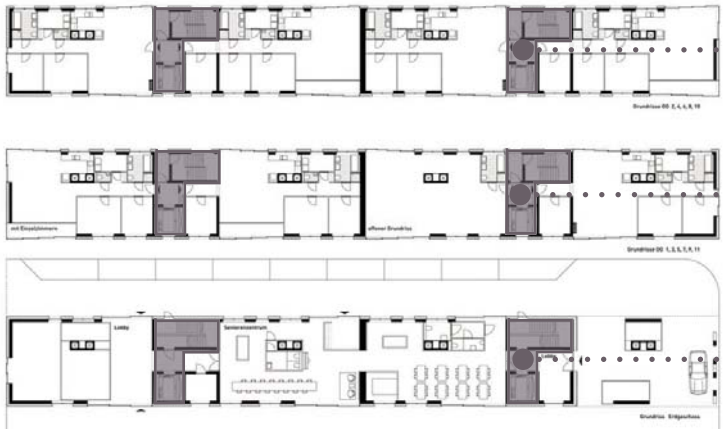
# casestudy



Centrally located plumbing chases make the apartment more conducive to a variety of layouts, without becoming an obtrusive object in the space.



The exterior walls serve as the structure, and with a very short span, the project is able to avoid the need for columns.



Two centrally located stairwells on each floor make the utility and circulation aspects of the building compact and easily accessible.

# sitecontext

## seattle, washington

Seattle, a seaport city located in Washington, is the largest city in the Pacific Northwest. With a metropolitan area population estimated at about 4 million, Seattle is one of the larger metropolitan areas in the country, and one of the fastest growing. The city is sited on an isthmus located between the Puget Sound and Lake Washington, a mere 100 miles south of the Canadian border. Originally an industry for logging, Seattle became a largely technology driven city when Boeing made it a center for aircraft manufacturing, and became the birthplace of tech giants such as Amazon, Microsoft, and many others. Seattle has recently become a hub for the green movement toward sustainability.



united states



washington



seattle

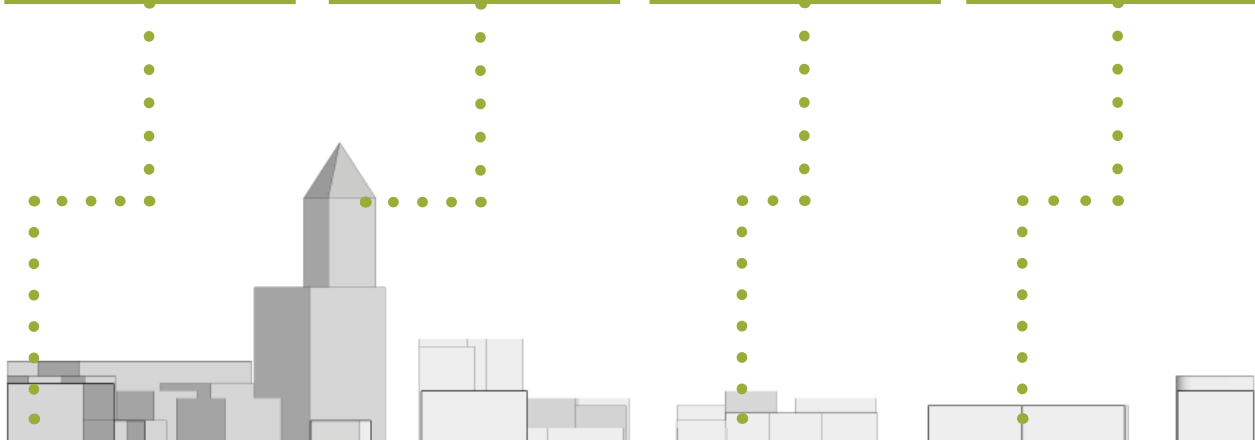


pioneer square

# sitecontext

## pioneersquare

Located just south of downtown Seattle, Pioneer Square is the original center of the city, where its founders settled in 1852. Originally the area's buildings were constructed of wood, but after the Great Seattle Fire, much of the area was rebuilt in brick and stone (as it stands today). The 1960's served as an attempt renewal, much of which was the building of parking structures (namely the sinking ship garage in place of the Seattle Hotel). Today, the area is known to be the center of Seattle's nightlife, along with being an up and coming area that was once more prevalently crime filled. The area is predominately commercial spaces, with little residential incorporated.



# area amenities



## *amenities*

\_a good majority of the amenities in Pioneer Square are food related (i.e. restaurant, bar, cafe)

\_a rich culture of art and gallery spaces seems to be present, particularly around Occidental Ave

\_a few gyms are located throughout, but not a particularly high concentration

\_lodging seems to be lacking, which could make families visiting more troublesome

\_one of two large stadiums exist at the south edge of P.S.

# area amenities



## *transit*

\_a large abundance of bus stops exists in the area

\_numerous light rail access points connect P.S. to greater Seattle

\_a major ferry terminal exists at the north connecting across the sound

\_a bike station exists, helping aid in making P.S. a bicycle friendly area

\_a number of vehicular parking lots exist, including the site on which we are designing

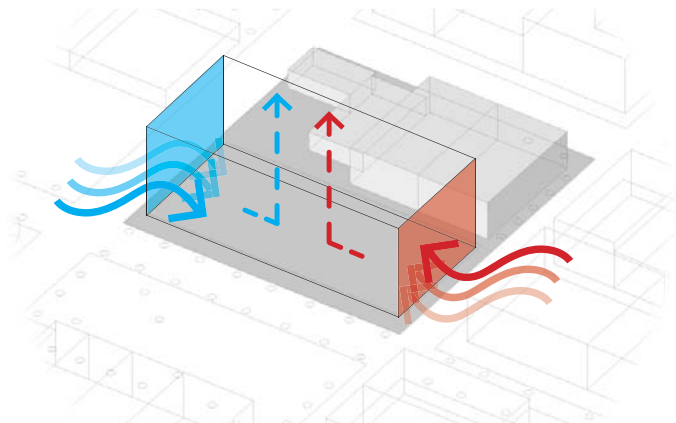
# buildingsite



# climate considerations

## wind influence

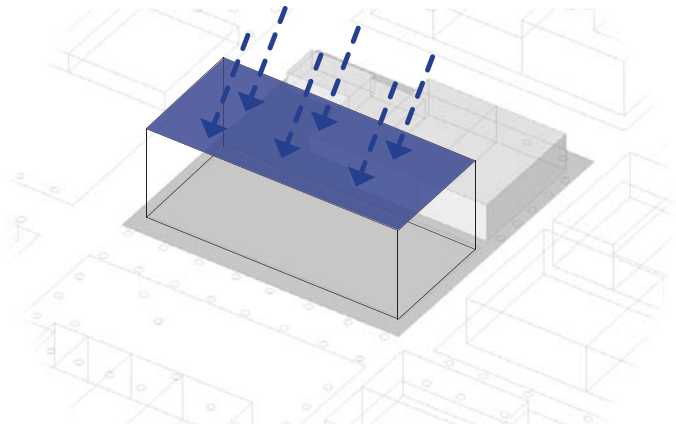
\_in the warmer months, wind from the north may potentially be channeled into the building as a means of passive cooling  
\_the potential for stack and cross ventilation exists with elongated N-S axis  
although warmer winds from the south occur in winter, one might consider blocking outdoor spaces from overexposure to them



Seattle receives cooling winds from the north in the summer months, and warming winds from the south in the winter months.

## rainfall influence

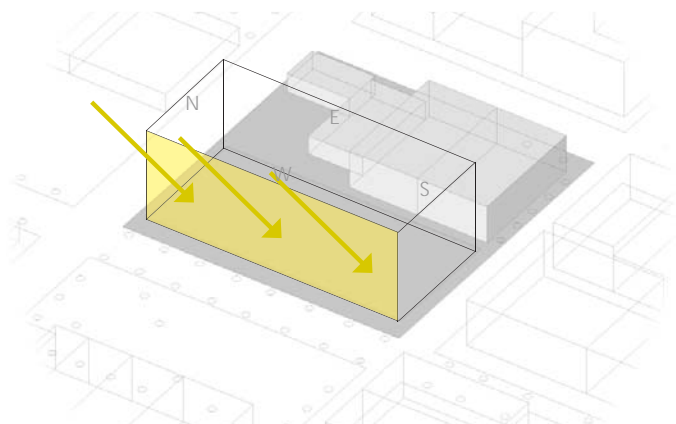
\_although Seattle doesn't receive more rain than many other parts of the country, the generally moist conditions might facilitate a green roof of some sort well  
\_rainwater collection is an option, potentially to water said green roof  
\_the inherent nature of Seattle's drizzly weather might warrant the use of overhead "umbrella" structures



Seattle's average annual rainfall is 34.1 inches, which isn't as high as one might expect, but is still a substantial amount of rain.

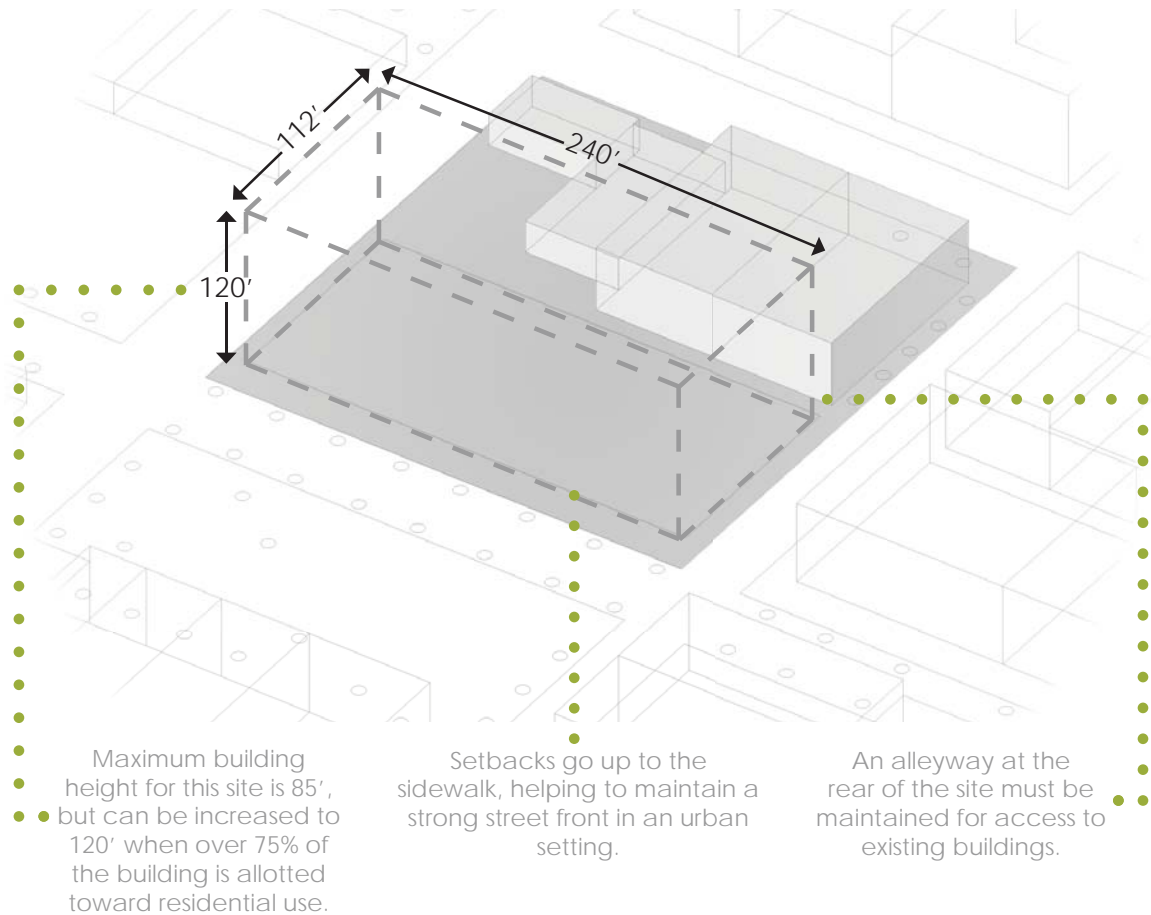
## sun influence

\_due to the elongated N-S axis, and the main views being west of the site, special consideration must be made to issues of:  
-glare  
-solar heating  
\_moveable shading devices may be necessary for sunny days  
\_western exposure might serve as a means of heating in the cooler months  
\_an overabundance of glazing might cause issues of glare



Seattle receives about 2019 annual hours of sunshine, which totals about 84 days, a larger number than some might expect.

# zoning | code



## pioneersquare general guidelines

### *site\_*

- the property line is the line of the building mass
- street facades should be uniformly located at the property line

### *design\_*

- buildings should have horizontal divisions creating both base and cap levels
- facades may be divided vertically with pilasters or wide piers
- facades should distinguish heavy terminal cornices, parapets, ornamental storefronts/ entrance bays and repetitive window sizes and placement

### *building materials\_*

- most common materials are stone and brick
- synthetic stucco siding is not permitted

### *color\_*

- facades are primarily tones of red brick or grey sandstone, with limited use of terracotta and tile

### *building base\_*

- buildings are allowed an 18-24 inch base
- base materials should be concrete, sandstone, granite, and should take into consideration color relationship with sidewalk



# clientprofile



## generalclient type

\_inhabitants of this project will likely be creative type (artist, designer, craftsman) who enjoy customization, designing, and outfitting space to their personal requirements

-types of creative people

\_the creator: imagining something that never was; making something new and innovative; traditional idea of "creative person"

\_the craftsman: those who enjoy tinkering; creating things often already existing

\_the connector: draws on existing knowledge; reworks ideas into new ideas

\_the curator: decides of what stays in the picture and what goes; the organizer of creative endeavors

\_the critic: judgment, evaluation, and questioning are arts in themselves; looking at creative works with a critical eye

\_inhabitants will likely be middle class and above as the built/customizable aspect of the project may cause added expense

-potentially roommate situations who could split the cost

-not targeted toward low-income or college aged individuals

\_users might be considered "forward thinking" individuals who embrace the idea of a different way of living/creating a living environment

\_users of the building may consider new and inventive "family" units, prompting new and inventive layout design

\_users may choose to create in these spaces, not just architecture but art

*\*\*this project most likely won't be suited for the average person, and will attract a very specific group/type of individual\*\**

# clientprofile

## focusedclients



the "golden girls"

These "sisters" of sort have recently decided to embrace their youthful college side, and move in as roommates. Having spent years gabbing and gossiping about their husbands in art classes together, the four now find themselves divorced and widowed, with only grown children to keep them company. Protesting the idea of bridge club and retirement living, they have decided to move to Seattle and open an artist studio for themselves (and supposedly others) to enjoy just steps away from their apartment.



the "father-son"

After relocating across the country to Seattle, the son of this father had finally found peace (removed as far as possible from his family). The argumentative father-son duo is back in action after "dad" took a little tumble and broke his hip. Here's to hoping that an inter-generational housing project can help combat the issues of overbearing parents and argumentative children.



the "typical family"

At first glance, this may appear the "typical family" (father, mother, son), but looks can be deceiving. The father of this family remarried someone (the age of his first children), and inherited a stepson in the process. However, they very much function as a normal family unit, and lead a relatively typical life. Who knows, maybe the two unknowingly have one on the way?

# buildingprogram

## programmamacro

### *commercial/ground floor\_*

#### **\_mix-use retail space (3) | 2000-3000 sq. ft. each**

Oriented toward Occidental Park, these retail spaces are meant to continue the pedestrian friendly shopping atmosphere already present on other parts of Occidental Ave. by opening up to the park and promenade. Each space should provide the shell for which a business could easily finish and outfit to their respective standards. Bathroom facilities may need to be considered in each space, as well as office and back of house spaces.

*\*\*Retail should be relevant to the existing creative atmosphere of the building\*\**

#### **\_building lobby | 500 sq. ft.**

Located off of the street, the lobby should serve as not only a communal point of access for the residents, but also as a place of inquiry for potential tenants. A reception desk should be located within reasonable distance of the main entry, as well as the incorporation of mail reception for the residents.

#### **\_building offices (2) | 120 sq. ft. each**

Located with direct access to the main lobby, these offices will serve the staff of the building responsible for renting and managing the property. The intention is that when fully occupied, residents will play the majority of the role in the functioning of the building and incorporation of new tenants.

### *residential\_*

#### **\_residential dwelling units (20-30) | sq. ft. as required**

Dwelling units, varying in size from studio to 3 bedroom, should be carefully mixed to create a diverse floor to floor community. Units will be designed in a manner as to have a predetermined kit-of-parts that the tenant can then employ to outfit the space as they see fit. A basic structural layout with designated service points for the installation of plumbing fixtures will be predetermined. The option of a live-work unit is possible. Units will be organized around a central core.

#### **\_temporary dwelling units (1-2) | 175 sq. ft.**

Consideration should be made to the potential of temporary units, or units meant to serve families visiting or transitioning into the building. Given the lack of lodging in the area, this may prove a major convenience for people with relatives visiting.

### *community (for residents)\_*

#### **\_communal interstitial areas (number TBD) | 225 sq. ft. each**

Where circulation spaces have been allocated to the exterior of the building, alongside should be the creation of interstitial spaces that aid in fostering interaction between residents when coming and going from their homes. Consider these spaces a place to break and talk with neighbors, potentially enjoy a cup of coffee, or any number of activities.

#### **\_semi-private green roof | 7000-8000 sq. ft.**

This outdoor space should be lifted off street level to bring a relationship of the park closer to the level of residences. Areas for residential gardening, as well as paved and green space should be incorporated in the design. Access from an upper level is necessary, but the incorporation of access from the street may be desirable. Storage for landscape maintenance needs to be incorporated.

# buildingprogram

## *service (for residents)\_*

### **\_parking for residents |** aprox. 300-350 sq. ft. per stall (aprox. 6500 sq. ft. total)

Accessible from either Main or Washington, parking should be located in a manner that doesn't detract from activity on the ground level of the building. Parking for bicycles should also be promoted, potentially more so than parking for automobiles. Consider space saving parking solutions as an alternative (long term storage for cars).

### **\_internal vertical circulation |** as necessary

Internal vertical cores should be allotted between residential units to serve as vertical circulation within the building envelope. These vertical circulation spaces will also serve as easy incorporation of plumbing chases into the building.

### **\_external circulation |** as necessary

Additional circulation will exist on the exterior of the building in order to aid in freeing up the building and creating less complexity in plan. These spaces will also become social spaces in the building, as mentioned earlier.

## *service (building)\_*

### **\_mechanical room |** 200 sq. ft.

Preferably located in a basement location, this room should essentially be out of sight and out of mind to the residents of the building.

### **\_electrical room |** 200 sq. ft.

Preferably located in a basement location, this room should essentially be out of sight and out of mind to the residents of the building.

### **\_janitorial closet (1 per floor) |** 75 sq. ft. each

Located throughout the building, these allow a janitorial/maintenance staff to clean and maintain the more public, shared spaces.

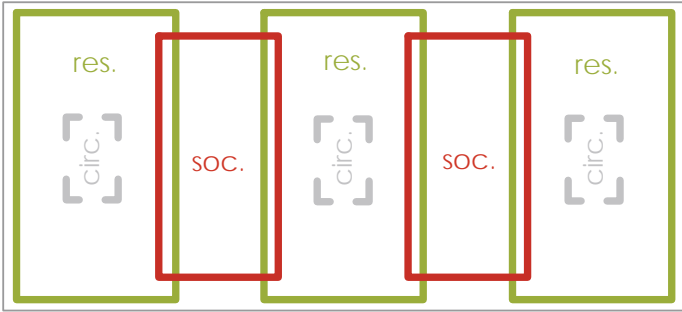
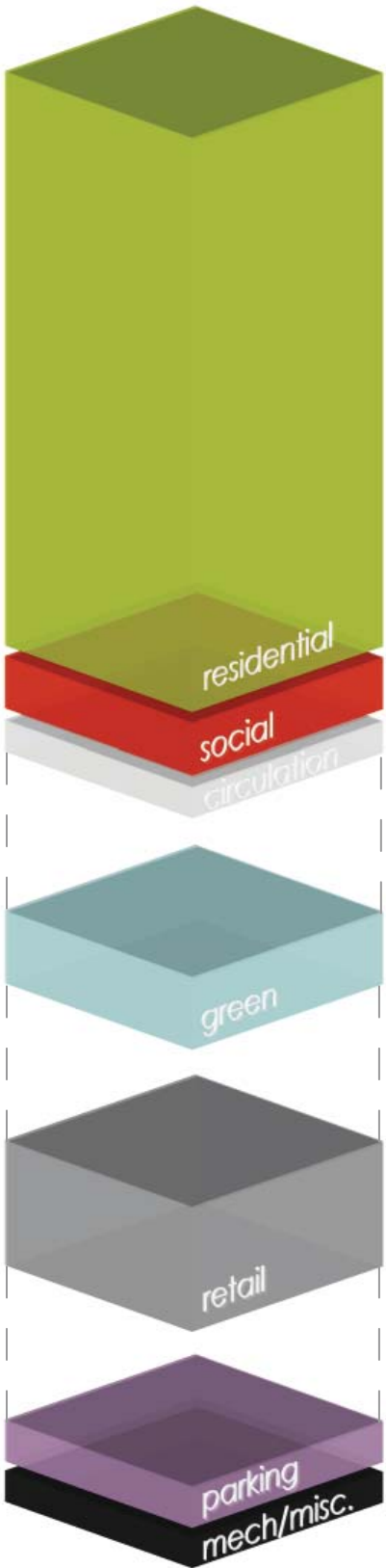
### **\_trash room (1 per floor) |** 75 sq. ft. each

Located throughout the building on each floor, trash services are more readily accessible to residents (especially those that aren't as able bodied).

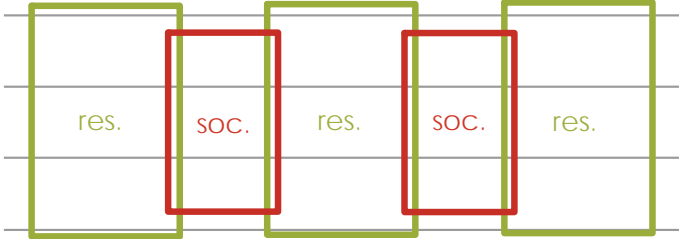
### **\_building trash collection |** as necessary

Trash should be easily accessible by garbage trucks via access to the alley running behind the site.

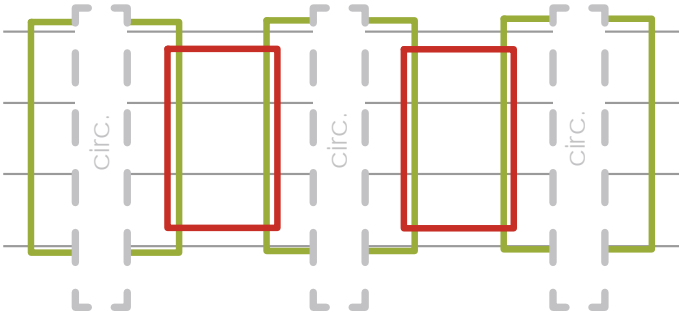
# buildingprogram



\_diagrammatic plan

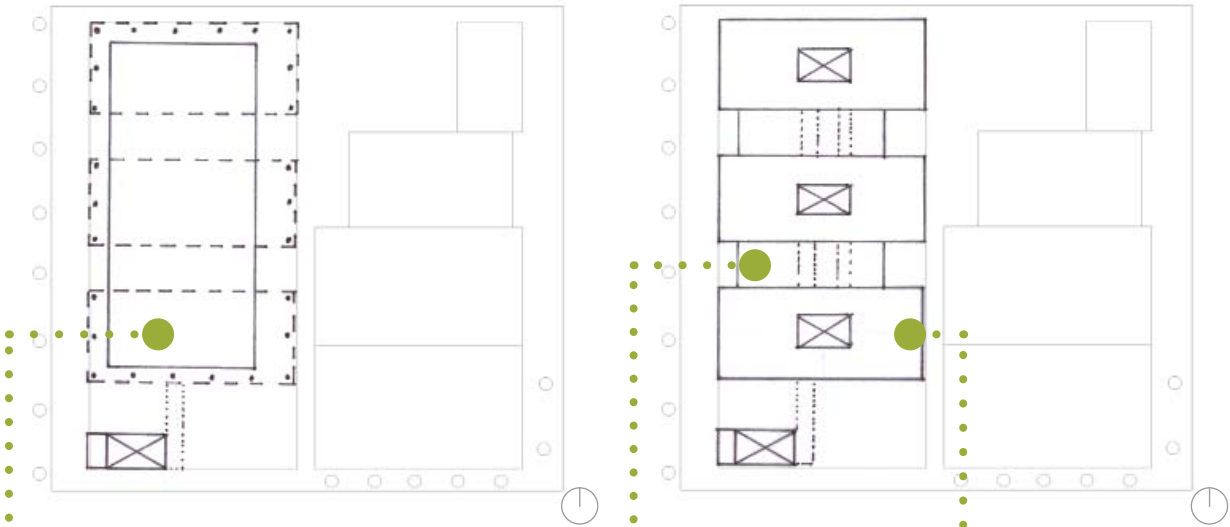


\_diagrammatic section



\_diagrammatic section

# building organization



\_schematic ground floor

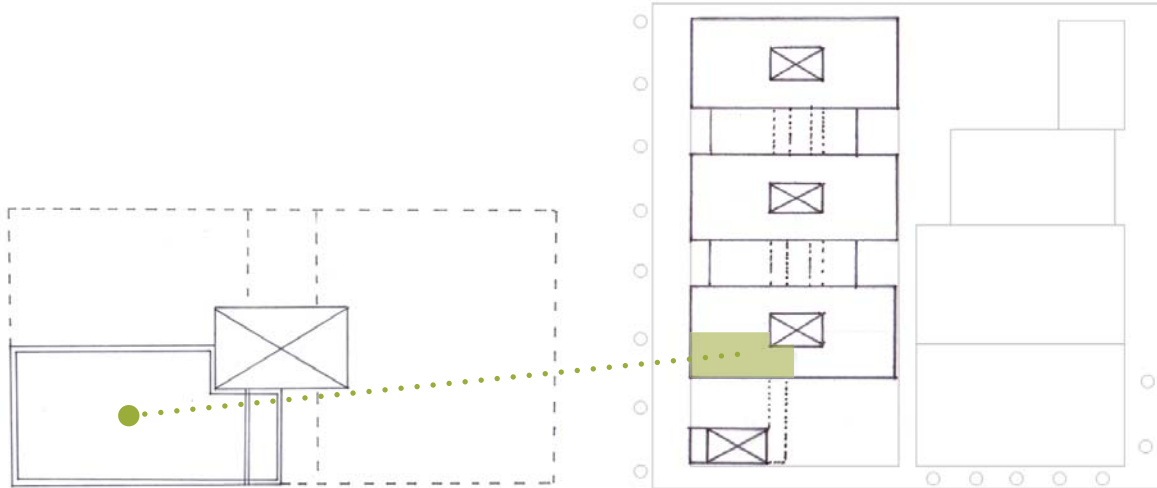
\_schematic upper floor

- • • • • **\_residential**
  - located above street level to remove it from the public realm
  - centralized circulation and utilitarian cores in each mass to center unit services around
- • • • • **\_social**
  - interstitial spaces between the residential masses become the places of interaction
  - the social spaces serve also as circulation, stimulating people to "run into" one another
- • • • • **\_green space**
  - allocated to the roof, each mass has the potential to serve as a different kind of green space
  - \_hardscape/softscape/garden
- • • • • **\_retail**
  - located at the base of the building, not only for ease of accessibility but also contextual connectivity
- • • • • **\_parking**
  - situated below grade, parking will be available, but will be out of site and out of mind



\_schematic elevation

# dwellingunit



## massingimportance

\_individual residential massing help create smaller communities that might aid in fostering neighborliness and friendliness

-further helps in promoting inter-generational living

\_by pulling apart the forms, the opportunity to give a corner condition to each unit and access to light is greatly improved

\_smaller masses make the ability to plan apartments around a central core not only more feasible but aid in creating more pleasantly shaped spaces

\_elongating the N-S axis of the residential units helps prevent issues of glare that might otherwise be present with the large amount of western edge the site contains

## designideas



Finished edges on partition walls help avoid damage to edges and appear more moveable.



Creating a kit-of parts for the unit will create cohesion and ease of choice for the tenant.



Using a raise floor system allows electric and utilities to be easily rerouted upon renovation/change of tenants.

# dwellingunit

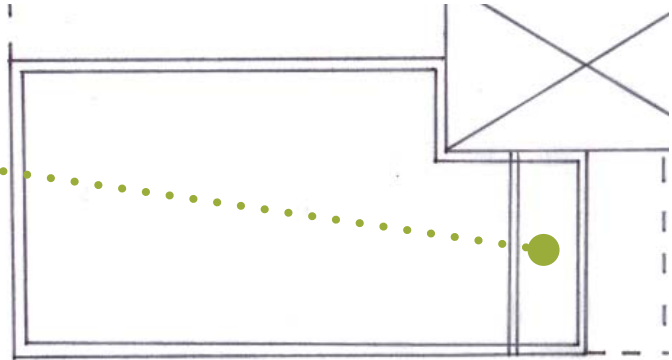
## potentialunit

### *empty shell*

\_the base structural shell of the apartment without any infill

\_allocated space adjacent to the central core for bathrooms

\_any location adjacent to the core would suffice for located plumbing to a kitchen



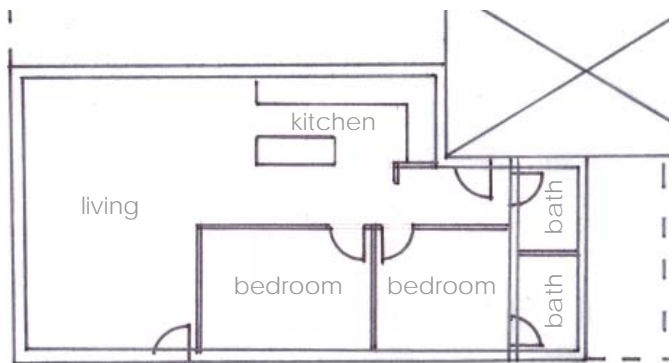
The nature of an empty shell for tenants to fill in leaves room for a multitude of possibilities.

### *single owner*

\_a typical arrangement is created for a normal, functioning person

\_bathrooms are allocated to the core area that is predetermined

\_the kitchen plugs into the central core, making plumbing chases easily accessible



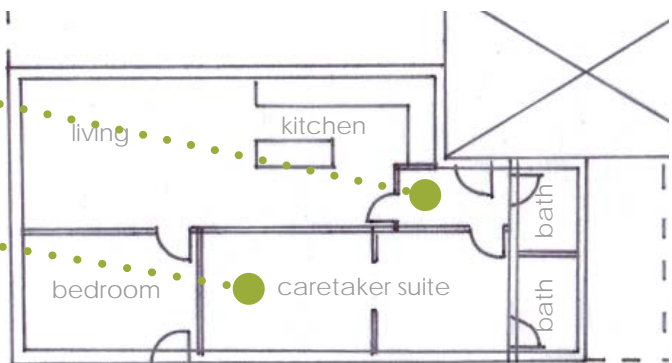
A single older person might choose to rent the space, and outfit it as shown above

### *single owner + caretaker*

\_the open foyer becomes closed off, and allows essentially two apartments in the space

\_an additional bedroom was added, and the original two rooms become the caretaker suite

\_much of the space can stay the same, but has the ability to adapt

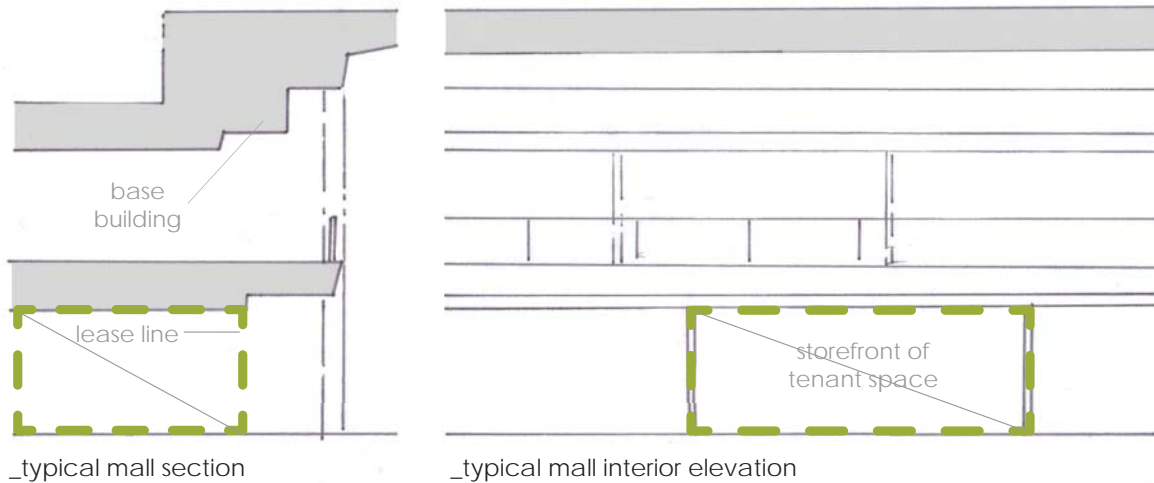


When the time comes that the resident can no longer live alone and needs care, the unit can be adapted to include a small suite for a caretaker.



# commercial mix-use

## existing methodology



*\*\*Commercial spaces are inherently designed with open building in mind, making easy for tenants to lease a space that is the structural shell and fit it out as they see fit. This building will be similar in nature, as the methodology of creating and renovating commercial spaces is a successful one.\*\**

## commercial aspects

### \_cafe/small restaurant

- considered a place to relax, work, and even be creative, the cafe will serve not only the needs of the residents, but the needs of the general public.
- situated on a corner, the cafe should be visible to a vehicular street as to interest a heavier amount of public use
- seating should be allocated both inside and outside, offering people a variety of atmospheres, as well as creating a greater amount of interaction with the public realm

### \_artist studios

- with a building client base that will be largely based in the creative type, and the abundance of gallery spaces located throughout the area, the creation of an artist studio where local artists (both of Seattle and the building) can come and work could greatly enrich the local art world
- these spaces should foster collaboration and interaction among artists, while keeping flexible the designated use (allowing multiple different kinds of art)

### \_art gallery

- one of the more flexible spaces, a gallery would not only reinforce the notion of open building, but would also add to the already rich culture of gallery spaces in Pioneer Square
- art from the neighboring studios would have an opportunity to be shown here
- the gallery would bring social events and the public into the realm of inter-generational living

# materialpalette

## existingmaterial palette



### *stone\_*

\_Prevalent throughout much of Pioneer Square, stone is used as both a building facade (generally in a smoother finish), as well as building base. Stone would lend nicely as a reinterpreted material to convey stereotomic mass.



### *brick\_*

\_Prevalent throughout much of Pioneer Square, brick seems to be the most popular material, and comes in a variety of finishes throughout the neighborhood. Although a viable option, brick's tectonic vs. stereotomic delineation is somewhat clouded by today's construction methods.

## potentialmaterial palette



### *natural wood\_*

\_As a material widely used in the Pacific Northwest (and occasionally in P.S.), natural wood would lend itself well to create a warming environment for residents, while also a viable option for a more tectonic expression of building construction.



### *zinc paneling\_*

\_Although colder and bleaker in color, zinc paneling has an inherent ability to loosely reflect some of it's surroundings, and might be a nice interplay of experiences reflecting the sun on a sunny day, or park in the not so distant forefront.



### *concrete\_*

\_The epitome of stereotomic mass, concrete harks back to materials such as stone in its sense of permanence, while maintaining a more modern, flexible use. The employment of concrete in a base structure could aid in delineating between the tectonics of the residents and



### *terracotta\_*

\_A traditional material, reinvented for the modern building era, terracotta lends itself well to the area as a material reminiscent of brick (by means of it's color), while still maintaining a modern, tectonic appeal for building application.

# structuralsystems

*\*\*Residential unit design with open building in mind becomes one of the more tectonic pieces of architecture, and although commercial is inherently adaptable, it tends to be more permanent of a space. For these reasons, the juxtaposition of a stereotomic commercial mass and tectonic residential masses will influence much of the structure, and vice versa.\*\**

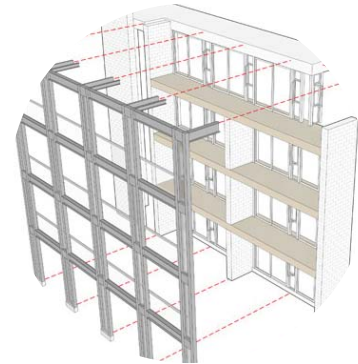
## tectonicexpression



*exposed truss*  
\_allocating the structure to the external walls to free up space, while still expressing the tectonics



*truss to support cantilever*  
\_bringing the tectonic structural system to the commercial level (stereotomic), relating the two systems at one point



*external structure*  
\_a structure for external features such as balconies and shading devices, separate from the building structure

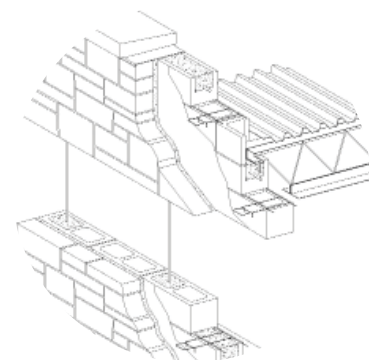
## stereotomicexpression



*cast-in-place concrete*  
\_a literal translation of stereotomic, juxtaposing against a lighter, tectonic structure above



*precast concrete panels*  
\_maintains the tectonic nature of open building while creating a greater sense of permanence below



*stone veneer*  
\_an option for the building to maintain one structural system with two distinct expressions

# structuralsystems

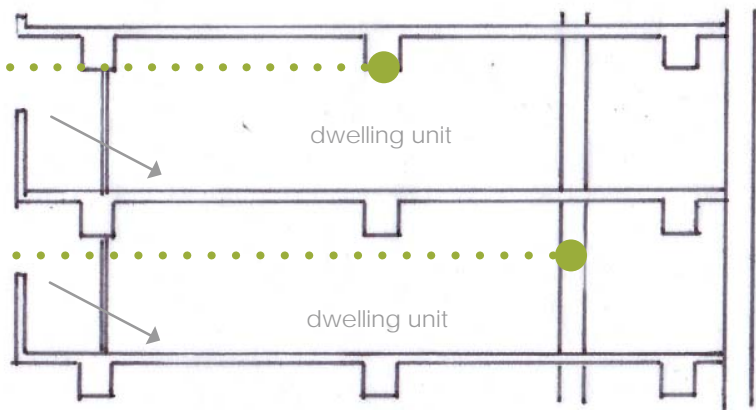
## raisedfloor

### *typical structural system*

\_in a typical system, exposed structure may interfere when trying to place walls/plan space

\_services like running electrical have to be allocated to interior walls built in place

\_spaces feel generally more compact, as the ceiling plan is continuously interrupted by structure



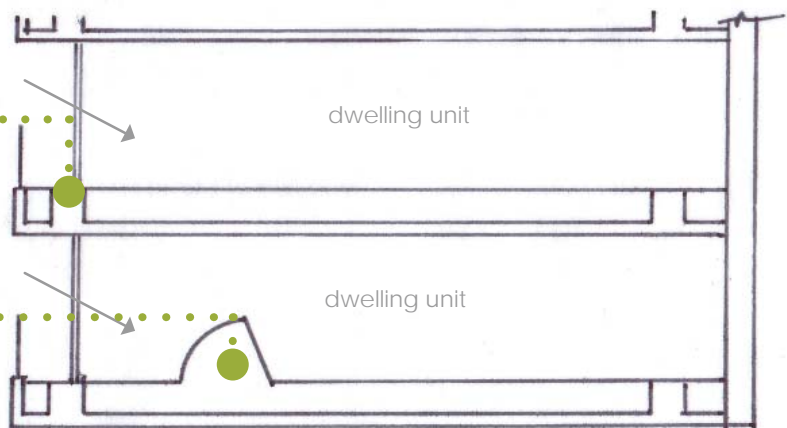
VS.

### *inverted slab/beam structure*

\_by placing structure in the floor plenum, the space is more open and free to plan as desired

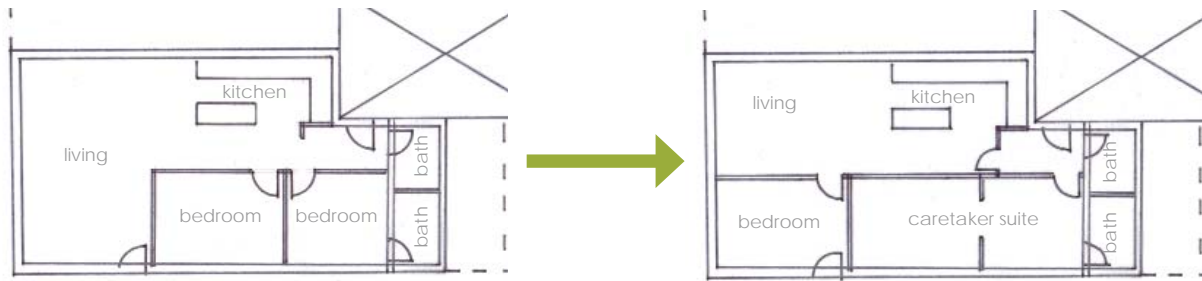
\_electrical and other utilities can be run underneath the raised floor, with points of easy access for change

\_the space seems taller than it otherwise might, taking advantage of a continuous ceiling plane



# intergenerational approach

## aging inplace



### \_adaptable living for changing lifestyle

- with the utilization of open building, the option of changing a person's current home is a not-so-distant idea
- ease in adaptability can make incorporating space for a loved one, or a caretaker, a much simpler task
- in turn, people have the opportunity to essentially live out their life within the same space, always suitable to their needs as an individual

## intergenerational promotion

### \_adaptable units cater to everyone

- rather than create a housing type that the elderly might like and the younger generations don't, or vice versa, open building creates housing that covers the generational spectrum of likes and dislikes.
- people have the option to make their housing what they want it to be
- any type of living situation can be accommodated, making it applicable to more than just "the family unit"

### \_centralized organization encourages interaction

- with a centralized circulation core in each residential mass, the various tenants of said mass are encouraged to see one another, interact, and become friends
- clustering entries around the center promotes neighborliness whereas private entries wouldn't

### \_interstitial spaces promote socializing

- the areas between residential masses will be universal spaces geared toward promoting interaction
- as alternative circulation routes, these spaces will carry people through them, potentially prompting them to stop
- creates interaction among the greater residential base than in just one singular mass

*Ultimately, this building type is creating an environment that prompts people of all generations to want to live here, and the spaces are programmed in a way to add support and interaction among residents, in order to foster a successful, intergenerational environment.*

# designvision

The vision for this project is one that brings inter-generational to the forefront of living prototypes for the older generation. The project would create dwelling units that people want to live in, and want to customize. Each and every unit will be a light filled, spacious, pleasant place to be. Although two-story units may be difficult when tasked with designing housing for all generations, these spaces will nevertheless feel as though they have their very own two story space, or at the very least spacious floor to ceiling allotment. Adaptability will be highlighted throughout, from the finishes on infill wall units, to the ever changing dynamic of the building. On the exterior, moveable shading and other devices will keep the building a dynamically changing, just as it does on the interior (an expression on might begin to see in the tectonics).

Interstitial spaces will play a key role in fostering social interaction, and what otherwise might be a place one travels right through can now become lively places of interaction between residents. Between building masses will be areas for gardening, sitting, interacting, etc. Rather than an alley of sorts between building masses, these spaces become beautiful, green, habitable spaces.

Reinforcing the creative nature of the project, and of the client type, commercial amenities will only further feed the inspiration of those individuals who actually do choose to create. With the incorporation of artist studios and gallery, in healing and inspirational spaces, a life will be brought to the entirety of the building, bustling with the interests of those all around Seattle.

The combined aspects of this project will, in turn, make a very successful, healing, desirable inter-generational living environment.



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