### OMGIVNING

# Reimagining Spaces: A Post-Pandemic Design Report Multifamily Edition



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# Reimagining Spaces: Our Post-Pandemic Design Report

Amid the upheaval from today's pandemic, we see one clear implication for our industry: space design is entering a whole new era, and there's no going back. Since March 2020, Omgivning has been exploring the potential of this design evolution and reimagining three space types in particular:

Workplace, Multifamily and Commercial.

As with all of Omgivning's work, our goal with this design report is to inspire people to take a closer look at the potential of an existing space or property.

Together, we can reveal and attain a site's highest and best use, even under challenging conditions.

# Reimagining Spaces: Our Consistent Themes

While developing our concepts, we noticed certain themes recurring across our three types of spaces (Workplace, Multifamily and Commercial).

Like many in our field, we had already been moving towards these findings, but today's shifts have filled us with a new sense of urgency.

#### Theme 1: Prioritize Human-Centered Design

Recent events have underscored exactly what all humans need to survive and thrive. By operating with these principles as our guide, we achieve a more human-centered design. They compel us to:

- Promote equality and diversity through design
- Balance socialization and privacy
- Create a sense of safe shelter
- · Connect people to nature
- Promote ergonomics and physical activity
- Allow for interpersonal connections
- Facilitate mental and physical wellbeing

These ideas are intended to work in tandem with the following themes.

#### Theme 2: Flexibility & Adaptability are Now Crucial to Success

Spaces must be transformable to accommodate different uses, allowing interior spaces to accommodate both living and working, for example, or to allow for a retail space to turn easily into a workspace. No matter the use, these spaces must fulfill the need for privacy, socialization and a connection to the outdoors. We must demand greater resilience from our spaces, whether in a pandemic, natural disaster or economic depression. Our focus comes from our belief that we shouldn't need to tear down a building simply because our standards of living and working are changing. Our goal is to design and adapt spaces that suit many varieties of users for a very long time.

#### Theme 3: Beyond Mixed Use: Blended Uses

Especially in Los Angeles, distinct uses once occupied distinct areas of the city. Accessing each use meant driving to those areas. Then came the idea of a "mixed-use building," where multiple purposes could be fulfilled in a single structure. Now, we are moving toward blended uses, where individual interior spaces serve multiple functions simultaneously. Long before the pandemic, we had been moving toward spaces blended by use. That natural evolution has been suddenly supercharged, reinforcing the point that users must be able to do just about anything, anywhere, at any time. People can now say: This is my bedroom and my workspace. That restaurant is for dining, working and buying groceries. This gym is a place where I can easily hold a virtual work meeting. Our design work should be able to support those assertions.

#### Theme 4: A Space is Inextricable from its Economic Context

Reimagining spaces now means that all members of the project team must work to keep things simple and limit excess. As economic inequality increases the distance between the haves and have nots, we must acknowledge our power to reduce that distance: to design spaces where a high quality of life is more attainable for more people. Likewise, during any downturn, residents and businesses must cut back and turn creative with their budgeting. Today's spaces must facilitate cost-sharing and revenue-generating models, in their design and operational programs.

# Reimagining Multifamily: Our Concepts

Before the pandemic, incorporation of amenity spaces and providing a variety of unit types were common considerations in urban multifamily buildings. Among the many economic impacts of today's pandemic, the residential sector will experience long term shifts in how its spaces are used and examined.

According to Preservation Positive, a report released by the LA Conservancy in 2020, approximately 60% of Angelenos rent while the city remains in the middle of an ongoing housing crisis. Rather than build itself out of this crisis, where the average cost to produce one new unit of subsidized affordable housing is at least \$400,000, we should seek to find a more cost-effective, creative, and sustainable approach. Through enhancing the city's residential stock in existing buildings, we can help fill the gap toward achieving the City's housing goals.

At Omgivning, we believe that our projects exist on a "macro to micro" continuum, a spectrum that incorporates all scales of impact, from policy and large-scale site planning issues down to the finished details of an interior space. To understand the future of residential spaces, we give significant consideration to the urban and human scales together in our housing projects by developing four concepts that highlight additional opportunities to create interconnected communities and adaptable living arrangements. Our vision incorporates further examination of these spaces within residential buildings along with recommendations for their application to existing buildings.

### Concept 1: Humanizing the Urban Experience

Densification in cities should continue, but not at the expense of residents' quality of life. Today's design teams must find ways to ensure greater connections to the outdoors, expand options for use, and restore affordability to urban living. How can we provide humanizing features for existing urban apartment buildings that contribute to a greener, more porous city?

### Concept 2: Expanding Unit Types

As family living continues to evolve beyond the nuclear family structure, we must accommodate the expansion of scenarios in which people inhabit their units. Our design responses must integrate diversity and flexibility into our spaces for the inhabitants' various needs. How can we augment living scenarios to meet the needs of the family and individual for privacy, personalization, and family support?

### Concept 3: Interconnectivity in Common Spaces

Working from home during a pandemic means being in one space for much more time than previously expected, in turn, affecting our wellness. There are profound opportunities to emphasize a connection to nature, expand private work options in communal environments, and introduce on-site commerce. While richly programmed amenity spaces are now practically a given for urban multifamily buildings, how should these spaces enter their next phase to positively impact our socialization and wellbeing?

### Concept 4: Transforming Interiors

The need for versatility in our spaces has never been more apparent in contemporary life.

Components must be designed to be "both/and" solutions to meet multiple needs, as opposed to "either/or" that only allow for a single use. How can the principles of human-centered design create new and impactful solutions that allow for this adaptability and flexibility?

# Humanizing the Urban Experience: Case Studies

As cities continue to densify, the future of multifamily housing depends even more on finding the right balance between indoor and outdoor spaces. This balance is critical to the health of urban residents and the success of the places they call home. Planning for density and open space must be considered to pave the way for a more porous city that includes spaces for increased access to natural light, landscape, and human-centered places.

In terms of housing, our era has seen the growth of two extremes. On one end, there have been dense mega-structures like the Kowloon Walled City in Hong Kong, where 50,000 people lived in a 6.4-acre parcel, once considered the most populated area in the world before it was demolished in 1994. On the other end of the spectrum, American suburbia consists of homes that are spread so far from major cities and services that they have lost any relationship with an environment or context beyond their own. Once viewed as quiet places to escape from the city, suburbs have become one of the few options for workers who are being forced out of city living due to high costs and lack of housing supply.

While these two typologies are vastly different in form, an understanding of what drove the creation of each allows for the potential to generate multifamily housing solutions that balance density with access to outdoor space.





Suburbia, USA Low Density

Kowloon Walled City, Hong Kong

Very High Density

### Humanizing the Urban Experience: Case Studies

Designing urban residential buildings around a balance of indoor and outdoor space is not a novel idea. Architects have been designing such places since the late 1800s, compelled by the challenge of retaining public outdoor space against rising industrialization. Early on, the design narrative focused on healthier ways of living that eventually gave way to augmenting connectivity within communities, boosting natural light and ventilation, and showcasing sustainable design elements.

Three multifamily residential examples offer a framework for the reconciliation of natural experiences with urban living. While each of these projects reflects a distinct density, context, and architectural language, they share an emphasis on balanced indoor/outdoor design. The SANAA-designed Shakujii Apartments comprise of eight three-story units in a dense neighborhood in Tokyo. The complex indoor/outdoor relationship relies on harmonious vertical and horizontal connections, turning the units into a community engaging its context and adjacent structures. Meanwhile, The Mountain, designed by Bjarke Ingels Group, combines the appeal of backyard-centered suburbia with the social interactions native to a dense urban area. This complex is composed of 80 units, each with its own outdoor garden facing the sun and a complete view of the surrounding landscape. A third project is located in Montpellier, France and designed by Sou Fujimoto. The Arbre Blanc (or "White Tree") is a high-rise residential building with cantilevered balconies of varying lengths, several of which are connected by staircases. The ground level and roof are communal spaces accessible to its residents and the surrounding community.

While each of these projects shows a distinct density, context, and architectural language that share the values of balanced indoor/outdoor design, they also possess a common porosity that connects the built environment with nature and the surrounding community, while contributing to a more porous city.



Shakujii Apartments | SANAA Low Density



The Mountain | Bjarke Ingels

Medium Density



White Tree | Sou Fujimoto High Density

### Humanizing the Urban Experience:

### Indoor / Outdoor

Outdoor living spaces can be profoundly satisfying and provide residents with a connection to the outdoors. Balconies, patios, and terraces can be visually appealing, inform the architecture, and create a sense of ownership and customization. They create a buffer between the occupied indoor space and the cacophony of sound from the surrounding city. However, countless recently built multifamily housing projects sacrifice individual outdoor space in favor of maximizing density and leasable area. Multifamily housing project programs are even seeing balconies, patios and terrace removed, substituted elsewhere by public open space and amenity areas exclusively for residents. We must consider both individual and shared outdoor spaces equally because they are vital to promoting ownership and community. These two varieties of outdoor space must be kept in balance, rather than one being prioritized over the other.

Finding a balance between indoor and outdoor spaces helps to create porous structures. We have identified three different typologies at varying levels of density that can lead to different outcomes and configurations to strike this balance.

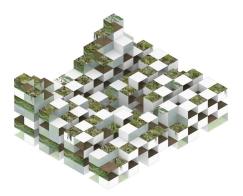
The low-density "Figure/Ground" typology creates relationships between indoor and outdoor spaces and offers a compelling connection between views, neighbors, and the city. Because these spaces can foster dialogue and social connections, they lead to a stronger sense of community within the complex.

The medium-density "Terrace" typology re-imagines the building as a stepped landscape with individual outdoor spaces that can be either open to the sky or covered. These spaces can be transformed into gardens, sun decks, or even ponds or pools. The terraced design helps residents maximize their views beyond.

The high-density "Vertical Tree" typology emphasizes each unit's balcony, which extends beyond the building envelope, almost like tree branches reaching for natural light. Balconies could hold potted plants, outdoor seating, canopies, and trellises.



Figure / Ground Low Density



Terrace Medium Density



Vertical Tree High Density



# Humanizing the Urban Experience: Deconstructing the Apartment Building

This multifamily concept is designed to give the user a wide range of choices based on desire, cost, access to light/ventilation, and intended use. Flexible accommodation of residents' ever-changing needs is now critical to the success of multifamily projects. The front half of the building consists of larger unit types with a sizable open space for cooking, dining, and living, as well as an adjacent outdoor space and up to two bedrooms. The back half of the building is made up of several standardized 10'x10' spaces, some with adjacent bathrooms or a small outdoor area.

A tenant with few possessions might be comfortable in the smallest configuration, which is a single 10'x10' space with an adjacent bathroom and small outdoor area. The tenant would have an option to also rent an adjacent 10'x10' space for use as a private workspace or den. Typically more private spaces in residential units need at least a 10'x10' space for uses such as sleeping, working, crafting, or playing music.

An extended family type such as a multi-generational family or a group of roommates might rent the larger unit type, while also renting some of the smaller spaces throughout the building for additional sleeping, playing or working spaces. A private workspace can serve parents while keeping them sufficiently close to their children. Through the mix of smaller and larger spaces, this concept offers tenants the ability to adapt their space to match their evolving lives. These small modules can facilitate the sudden need to house an aging relative or host a short- or long-term lodger.



- Work Space
- Sleeping Space
- Bathroom
- Living
- Kitchen

#### Family Unit Types



Family Type #1

- "6 Roommates"
- · Shared main living space, outdoor space
- + 1 roommate sleeping (850SF)
- 1 roommate sleeping space (150SF)
- 1 roommate sleeping + outdoor space (200SF)
- 1 roommate sleeping + work space (250SF)
- 2 roommate sleeping, work
- + outdoor space (350SF)



Family Type #2

"Single Adult"

• Sleeping + outdoor space (250SF)



Family Type #3

- "Multi-generational"
- Shared main living, outdoor,
- + 2 sleeping space for parent and young child (1200SF)
- Grandparent sleeping, work + outdoor space (300SF)
- Adult child sleeping + outdoor space (250SF)



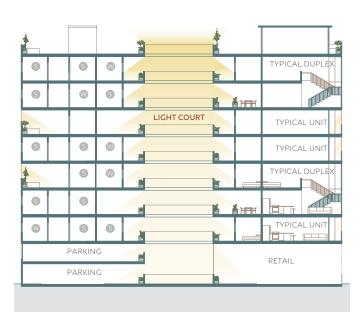
Outdoor Space

**Apartment Building Axonometric** 

### Humanizing the Urban Experience: Deconstructing the Apartment Building

The success of today's multifamily buildings requires a deconstruction of their form to understand new opportunities within this building typology. This concept incorporates an open-ended light court that allows natural light and ventilation to flow throughout, letting the building breathe by pulling it apart. Pushing the circulation outdoors at the perimeter of the light court allows users to engage with the open air as they walk to their workspace or amenity area, as well as a more pleasant and hygienic open air space. Separating the family units from work and amenity areas separates private and social functions, allowing tenants to be more present and mindful in their space. This encourages movement, preventing a sedentary lifestyle.





Typical Floor Plan

**Building Section** 

#### **Family Unit Types**

- Family Type #1 "6 Roommates"
  - Family Type #2 'Single Adult"
- Family Type #3 "Multi-generational"

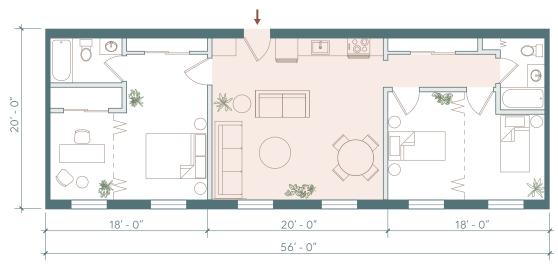
- Work Space
- Sleeping Space
- Bathroom
- Living
- Kitchen



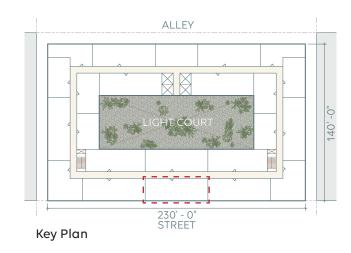
# Expanding Unit Types: Private and Gather Zones

By their very nature, traditional two-bedroom apartment layouts offer little flexibility for various living situations. They typically consist of two private sleeping spaces and one gathering space to house either two single people, a couple with a child, or a couple with one workspace.

The addition of a few linear feet to the traditional two-bedroom configuration enables the unit's expansion to hold up to four private spaces within the 1100 sf. This augments the living scenario to accommodate up to four residents, increasing the unit's market value. A smaller enclosable space added to the bedroom allows for a work area or a nursery. The other private space could easily be divided into two spaces for other users and/or additional workspaces. Separating the workspace from the bedroom allows the user to better focus on each use independent of the other, improving concentration and restfulness.



**Enlarged Typical Unit Plan** 



#### Legend





### **Expanding Unit Types:**

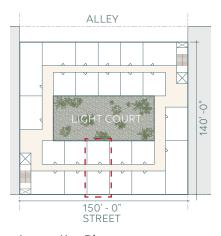
### 2-Story 2-Family

This concept serves the needs of a multi-generational family or even two small families that each desire a private space plus shared common space for both families. We envision two-story units housing up to eight people within the 1,800 sf unit. The lower level units allow sleeping or sleep/work configurations that are specific to each family. At the upper level, both families share a common space for cooking, dining, and gathering.

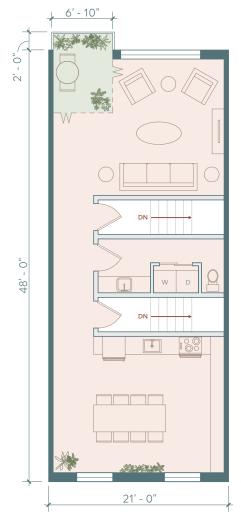
This concept provides an alternative scenario for people's need for privacy, socialization, and support from family members. While the unit type loses efficiency with a stairway for each family, it provides an additional 120 sf per unit to the building's overall revenue-generating area by omitting a corridor at every other level.



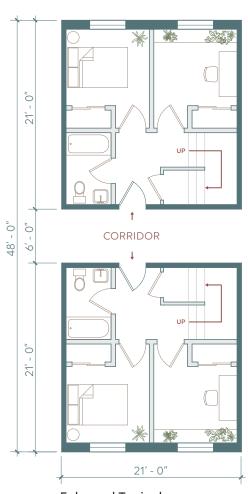
Upper Key Plan



Lower Key Plan



Enlarged Typical Upper Unit Plan



Enlarged Typical Lower Unit Plan

### **Legend**







### **Expanding Unit Types:**

### **Roommates and Pods**

There is a growing trend in housing for young adults where a larger unit allows the potential for more roommates, enabling lower individual rent.

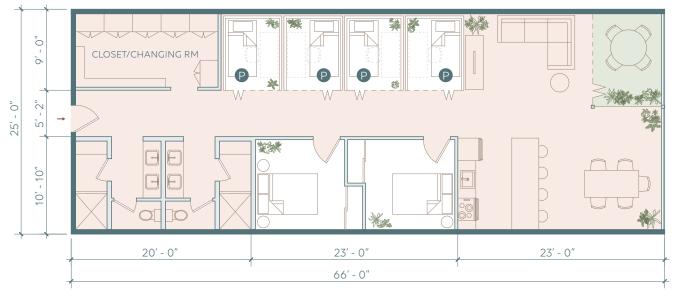
This particular 1,600 sf unit type is shown at an existing building that may be restricted with light and ventilation at only one side, requiring longer unit types. The configuration consists of two bedrooms and up to four pods, allowing the unit to hold up to eight residents. The sleeping pod can be adaptable to flip up the bed or roll up the sleeping mat to create a daytime workspace with a flip-down desk. The cooking, dining, and gathering space benefits from natural light and ventilation becoming an engaging social space. The storage room provides a personal closet for all pod users, and adjacent restrooms facilitate multiple simultaneous users.





Pod - Daytime Work

Pod - Nighttime Sleep



### **Enlarged Typical Unit Plan**

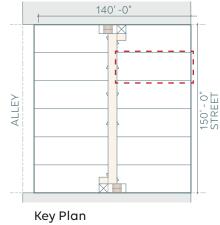
#### Legend

**Outdoor Space** 

Common Space

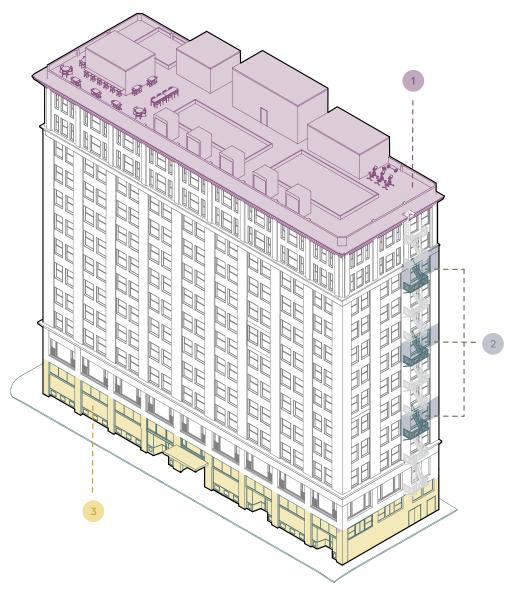
**Entrance** 

Pod



# Interconnectivity in Common Areas: Building Diagram

Programming common areas serving multifamily projects must go beyond meeting traditional uses. They must set the bar higher by offering opportunities to create culture, spark new interactions, and facilitate a building-wide sense of community that extends into the surrounding neighborhood. The next concepts explore ways to strengthen a building's community at different scales with the context of an existing 12-story building in downtown Los Angeles. Opportunities exist at the rooftop, fire escapes, and ground floor to establish a culture in a building whose residents prioritize conversation, connection, and creation.



#### **Building Common Areas**

1 Roo

2 Shared Porch

3 Ground Floor

Overall Building Axonometric

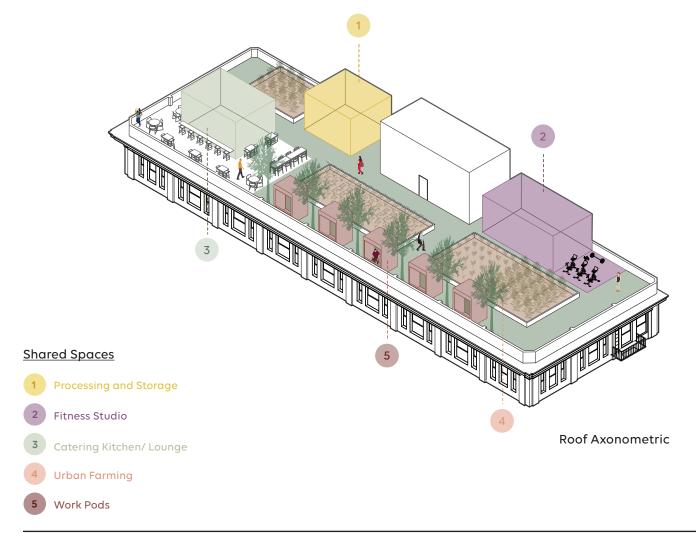
# Interconnectivity in Common Areas: Roof - Work Pods and Urban Farming

Today's urban multifamily projects are expected to have rooftop common areas with amenities that are practically essential to the financial success of the building and the wellbeing of its users. This concept introduces four ideas that could significantly enhance multifamily roof spaces including biophilia, urban farming, shared experiential amenities, and work pods.

Our collective tendency to relate to natural elements, known as biophilia, is closely tied to our health and happiness. We believe that contemporary multifamily projects should reduce the amount of hardscape roof surfaces, and prioritize the creation of green, park-like settings with trees and vegetation that attracts birds, butterflies, and other pollinators surrounding small gathering areas.

The impacts of the pandemic have greatly increased our desire for self-sustaining food options as more people have taken up baking their own bread or managing a personal garden to incorporate these richer experiences with ingredients into their daily culinary routines. An urban farm element has the potential to create a deeper connection to nature as many people have a desire for locally sourced food, and are interested in managing a small garden of their own to grow herbs or produce. The typical catering kitchen and lounge amenity can be enhanced to become experiential spaces where residents can share in food preparation or host culinary classes.

Modular work pods can also upgrade rooftop working among views and greenery. The pods provide tenants a refreshing alternative focus on work outside of one's unit. These elements acting together create another layer of culture and social connection of residents within the building.



# Interconnectivity in Common Areas: Work Pods

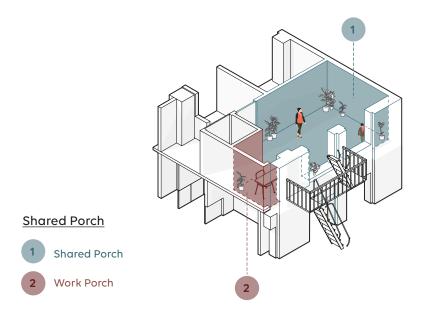
As working from home becomes more prevalent, private workspaces are now a prized residential amenity. Because video conferencing and phone calls are not suited to public areas, fully enclosed work pods enable focused productivity. The operable glass partition provides acoustic privacy with a visual and physical connection to the surrounding rooftop and greater cityscape. Additional open-air workspaces with shade could also provide a refreshing productivity hub. For a residential building composed of micro-units, these private workspaces would be a particularly valuable amenity.



Roof Work Pod Perspective

# Interconnectivity in Common Areas: Typical Floor - Shared Porch

Typically designers of high-rise buildings have located common amenity areas at the bottom and/or top floors. Not only does access become inconvenient for some tenants in large buildings, but these spaces can also become overly active and loud when they're the only social spaces immediately available. Carving small spaces throughout the building and removing existing windows on every third floor, provides convenient access to a partially enclosed, open-air porch space. This space also incorporates greenery through portable planters and hosts a private work pod that all tenants have access to. The prevalence of these spaces also allow opportunities for more frequent interaction with direct neighbors, lending a more closely-knit micro-community within the building.

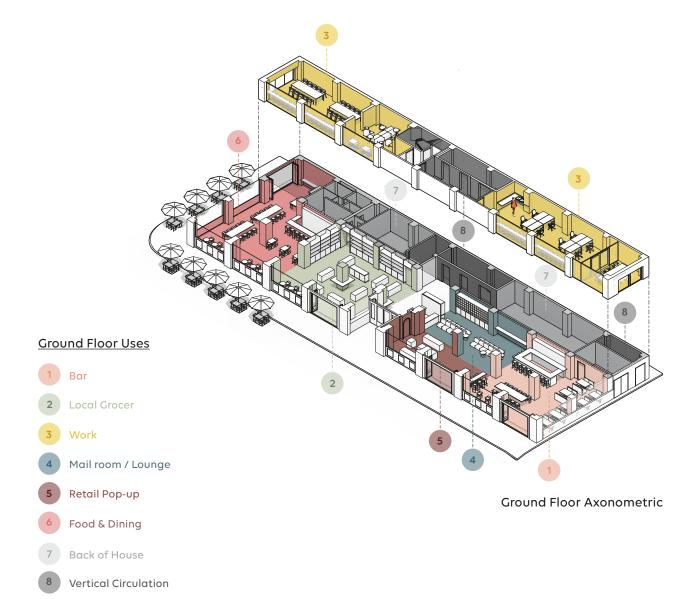




# Interconnectivity in Common Areas: Ground Floor - Blended Uses

In multifamily buildings, ground floor commercial spaces are susceptible to high turnover and long-term vacancies with little emphasis placed on syncing their uses to the needs of the building's residents. Residential amenities act as a hub for a building's culture and have the potential to be activated even further beyond their traditional uses by placing some of these amenities on the ground floor to blend with both neighborhood-oriented retail and destination retail. This General Store concept activates the ground floor space by addressing the needs of the building's residents through retail, grocery, dining, and coworking uses. Dissolving the barriers between these uses allows for a less fragmented residential experience, helps connect the building and its residents to the streetscape, and creates opportunities for commerce at a variety of scales.

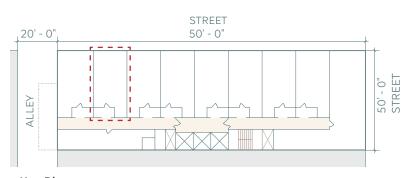
Opportunities also exist to create new experiences and interactions in areas once relegated to back of house, or typically common to the street and sidewalk. By relocating the mailroom to the front of house, and adding refrigerated boxes and larger parcel rooms, even the simple act of picking up mail presents a greater chance of engaging with neighbors. Given the increase in online commerce and its associated deliveries, tenants may find themselves in the mailroom engaging with the surrounding ground floor uses multiple times a day. A curated retail component, whether a general store or a zero-waste refill station for self-care products, reduces additional trips for regular tasks.



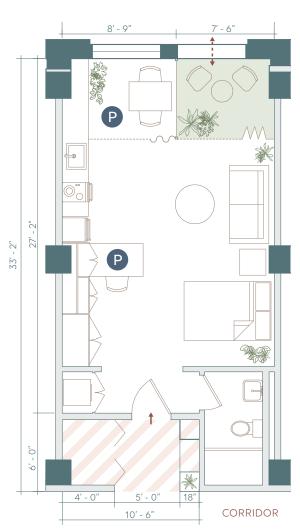
# Transforming Interiors: Indoor to Outdoor Connection

Using the principles of human-centered design, we must consider new and impactful solutions to today's pandemic-related challenges, in which we live and work simultaneously, often in the same realm. This concept explores four ideas to create a reimagined living and working space within the context of a typical 600 sf unit.

Even in an existing building, we can enable outdoor connections on a very small scale of an individual unit by carving out a small area for a private porch. By removing a window and installing an operable glass wall around a corner niche, this porch space acts a transition between inside and outside where the tenant can connect with sunlight, city views, and fresh air.



Key Plan



**Enlarged Typical Unit Plan** 

#### Legend



Entry Vestibule

**←** Entrance



### **Transforming Interiors: Entry Vestibule**

Residential corridors are typically long passageways with minimal consideration aside from finish selection and door numbering. Beyond these entry doors, however, is a home filled with energy and personality. An entry vestibule has the potential to blend functionality with self-expression, where residents could be encouraged to display personal effects as a form of welcome.

Such a vestibule breaks up the corridor and creates a rhythm of personality to enliven dreary passageways. The vestibule also acts as a transitional entry space, offering residents and visitors a place to remove outerwear exposed to outside elements, stow away a bike or scooter, and leave your shoes at a built-in cubby before proceeding into the cleanest possible home. This space also acts as a secure package drop off location. A built-in lockable storage closet allows for storage of bulky items.







Tenant #1

Tenant #2

Tenant #3

# Transforming Interiors: Convertible Workspaces in the Home

As a result of the pandemic, our home workspaces have become profoundly vital elements of our livelihood. This concept considers a couple who share a small, urban apartment, and anticipates two options for giving each resident a workspace that adapts well to studio and one-bedroom units.

A dining nook that can be closed off with a curtain or sliding solid partition can function as both a dining space and an adaptable workspace that can transform as needed for sound control and internal focus. The enclosed space also creates a boundary for work functions to allow for a better work/life balance.

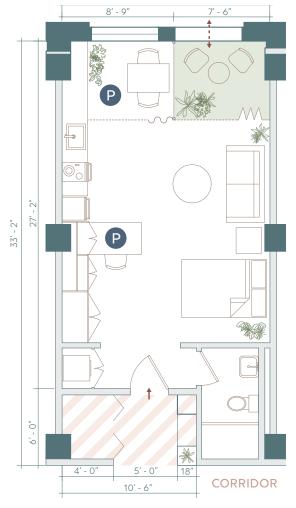
Furniture must also be flexible to adapt and convert to be a workspace as needed. Each of these options allows for an easy transition between uses so that daily clean up and reconfiguration are seamless and hassle-free.



Unit Interior - Working



Unit Interior - Living



**Enlarged Typical Unit Plan** 









