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Connected: Exploring Automation to Activate Aging in Place Success

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DECLARATION

“Serenity is the great and true antidote against anguish and fear, and today, more than ever, it is the architect’s duty to make of it a permanent guest in the home, no matter how sumptuous or how humble.”

- Luis Barragán

Design is transformative. As a designer, I hope to be an authentic synthesizer, bringing together the needs and ideas of others and the needs and demands of a space, to create the highest levels of function + beauty, adding ease and joy to daily life.

I value respect— of the human condition, of the environment, of innovation, of tradition.

I value resourcefulness— of time, of materials, of teamwork.

I value collaboration— with locals, with experts, with culture.

I value simplicity— mastering the details to minimize the superfluous while embracing identity, creating deceptively modest + simultaneously luxurious surroundings for any and all.

I value joy— I will strive to add in process, in concept, in program, in both the finished and unfinished.

I value rhythm— create it in practice, in design, in discovery through harmonious sequences, correlations + patterns.

I value risk— embrace failure or forfeit fantastic.

Remain a perpetual student of the craft, of the world, of people— continuous improvement, always.
MOTIVATION:
There's no place like home. Technological advances are now allowing us to live and work from anywhere. Spatial divides are disappearing through remote connections, creating a dispersion of the nuclear family, traditionally the prevailing caregivers for seniors. Older adults are projected to outnumber children under eighteen by 2034, a first in U.S. history (Census Bureau, 2019). This is not specific to America; “globally the population is aging. Since 1980, the number of people aged over 60 has more than doubled in size and is projected to do so again by 2050 to 2.1 billion” (United Nations, 2017).

ISSUE:
There exists a clearly overlooked opportunity to address this desire to age in place and the coming caregiver shortage: interior design. Often a liaison between architects, builders, and clients, interior designers could be the missing advocate for integrated technologies automating activities of daily life for meaningful environmental, financial, health, and social implications as this demographic shifts into their later years offered by longer life expectancies. Automation allows for more time to engage in meaningful physical activities, self care and relationships to encourage successful longevity while mitigating many of the risks of living alone into old age.

APPROACH:
This investigation will focus on human-centered smart technologies specific to a person, a home, and a community in combination with adaptable building solutions to allow a house to safely support independence as long as possible. Creating a scenario for seniors to remain active contributors in their lives will continue “helping retain connections to the past, and obtain enhanced relational wellbeing in later life and nourishment from place” (Creaney, R., Reid, L., & Currie, M., 2021).

RESULTS:
A “Smart Inn” will be developed to explore smart technologies aiming to alleviate hesitations through first-hand experiences and shift the focus towards an approachable adoption of customizable devices. Combined with adaptable, efficient design solutions, guests will be invited to re-imagine their “later years”, leaving with new confidence to integrate automation into their own homes, allowing them to age in place. An educational vacation where the foreign becomes the familiar. The Inn will consist of nine suites with generous common areas designed to encourage neighborhood and interaction with other guests and the surrounding local community. Sited in a notoriously progressive convivial residential neighborhood will allow a safe, supportive environment to try something new; for just a night, a weekend, or an extended stay up to a month. The neighborhood is adjacent to parks, trails, outdoor sports and exercise facilities. Utilizing these amenities in addition to home gym innovations will model healthy habits. The proven benefits and successful use of physical activity interventions to ward off declines that accompany the aging process.

CONCLUSIONS:
The “Smart Inn” will address questions of how artificial intelligence, environmental sensors, and related technologies can optimize social interactions and will best elevate the quality of life for seniors and their caregivers when applied in the built environment and become significant solutions to “the considerable costs involved in the care of an aging population and the perennial shortage of healthcare professionals” (Gochoo, Alnajjar, Tan, & Khalid, 2021).
RESEARCH

AGING IN PLACE + SMART HOME TECHNOLOGY:

Research is showing we are all living longer with life expectancy now approximately fifteen to twenty years past our "healthy years," and nearly 90% of seniors now preferring to stay in their homes (Bosch-Farré, 2020). The majority of existing homes are not age-friendly, with nearly 80% of seniors in Virginia currently living in homes built before 1970. However, 84% of those homes have broadband internet (91% have a computer connectivity through wi-fi). New smart home technologies could be a primary consideration in home modifications and new residential buildings to accommodate for the growing appeal to age in place. Originally, smart home technologies primarily focused on security and energy savings. More recently, we are seeing a more bifurcated strategy that emphasizes enhancing overall quality of life. Smart residential environments are now designed with an emphasis on engaging older adults and providing positive experiences. "Smart homes increase domestic comfort, convenience, security, and leisure as well as reduce energy use through optimized home energy management" (Hargreaves et al., 2018). There has been significant growth in general technology adoption among baby boomers in just the last ten years (Vogels, 2019). Elderly adults now represent the fastest growing population of adopters to internet and computer technologies [7]. There is clear potential therefore to adapt digital technologies, such as telemedicine and telehealth, to the challenge of enabling active aging (Robbins, 2018). The pandemic has accelerated this at an even faster rate, which will advance acceptance of smart home devices. Cost and usefulness continue to dominate concerns across all ages, especially the elderly. The vast options available and continuous introduction of new technologies keep many from attempting even small changes that benefit the environment through automated energy management, and
PREVENTION THROUGH PHYSICAL ACTIVITY INTERVENTIONS:

The World Health Organization (WHO) defines active aging as "the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age" and healthy aging as "the process of developing and maintaining the functional ability that enables well-being in older age." Given physical inactivity is the fourth leading risk factor for death/disease around the world, ahead of overweight and obesity, the WHO are focused on timely promotion + implementation of physical activity preventative programs, especially given the slower adoption rate by older demographics. Europe created the "Blueprint" initiative for fitness + activity, which offers resources + training to help, emphasizing the earlier we can raise awareness and encourage lifestyle changes, the better; targeting the robust + pre-frail populations before age-related limitations or declines arise is critical so our health care systems are not overwhelmed (Active Aging, 2019). A major source of health costs in the elderly is falls, injuries + fractures from co-morbidities; 50% reduction in risk when doing moderate intensity activities, with effective programs to incorporate strength training with aerobic exercises for varying levels of function (Bauman, 2016).

There are specific proven benefits for physical activity effects on physiology of aging, including chronic disease prevention/risk reduction (general mortality, heart disease, diabetes, stroke, fractures, colon + breast cancer, weight, blood pressure + falls). Functional outcomes include muscular strength, bone density, quality of life, cognitive + physical functioning along with improved psychological + well-being benefits through reduction in anxiety, depression, stress, and greater long-term well-being + life satisfaction. Studies have shown physical activity improved self-esteem, sleep + social outcomes (community involvement, social networks/support + intergenerational activities). All of these benefits are important aspects to aid in successful aging in place scenarios.

THIRD PLACES:

Another important aspect to facilitate aging in place is establishing + encouraging intergenerational third places. Much of one’s social life + identity is intertwined with work, so it is critical to find supportive places in the community to facilitate these void after retirement. “Third places” can be defined as accessible areas to create a home away from home that take form in variety of neutral, approachable spaces such as public parks, bakeries, markets, shops + community institutions (Gardner, 2011). Third places allow the elderly four important activities: setting group limits (social expectations + accepted behaviors), entertainment + correction, information sharing and a space to vent. Third spaces allow “participation of those most in need, mostly those who do not want to participate in more institutionalized socialization” (Torres, 2019). These things create what Jacobs + Oldenburg call ‘public characters’; it allows for a sense of ownership of a physical space, which garners emotional investment with the belief that “care taking of place may lead to caring for and helping the people who inhibit these spaces” (Torres, 2020). Research is also showing a declining use + participation in age specific spaces like traditional senior centers, highlighting Baby Boomers new preferences for multi-generational public spaces in more commercial settings.
The First Unitarian Church of Rochester (FUR) served as a direct reference for the First Unitarian Universalist Church (FUU), in materials, form + diffused light. Built a few years prior in 1968, it allowed Louis Khan to experiment with his ideas on light and form. The building is characterized by its straightforward geometries, that were analyzed for intention and reference for scale. The clerestory windows were examined for placement + function to illuminate the sanctuary space, which had no other windows. In the current FUU, the clerestories serve as light “walls”, defining different spaces along the main axis. How will this play into programming to maximize their impact for certain activities? Given the similar program for the current use of FUU also allowed for a comparative analysis on adjacencies + tried understanding how those could translate into hospitality program.
FIRST UNITARIAN CHURCH OF ROCHESTER

Built in furniture for seating + storage to take advantage of smaller spaces and flexible areas using wall cleats to move larger furniture + create unique spaces for certain circumstances.

Materials; this room off the lobby is the only wood ceiling feature throughout the building, creating additional warmth + more intimate/personal space for socializing. The wood ties into the built in benches + trim, connecting the person to the building to the sunlight.
**THE INN AT MIDDLETON PLACE**

W.G. Clark (then of Clark + Menefee) was the lead architect; the project was built in 1987 and received the AIA’s Honor Award.

Building precedent; scale, proportion, site/ nature/city connection with past through details to unify (ex: historical Charleston colors blending with new modern structure).

Programming precedent; the scale is larger, but similar amenities + activities will be important considerations for comparisons. The structure and site are also of interest; screening was to preserve the look of the original surrounding gardens without stopping the progression of natural surroundings. Details of prior mill use remained and added charm to the more modern structures. Adjacencies of common areas + placement on site were studied.

### AMENITIES

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Programing</th>
</tr>
</thead>
<tbody>
<tr>
<td># of guest rooms: 55</td>
<td>restaurant - open daily for lunch + dinner</td>
</tr>
<tr>
<td>total square feet: 4651</td>
<td>farmer's market</td>
</tr>
<tr>
<td>(meeting + exhibit space)</td>
<td>pet friendly in-room “get fit kit” rental</td>
</tr>
<tr>
<td>distance from the airport: 10 miles</td>
<td>rental riverside swimming pool</td>
</tr>
<tr>
<td># - meeting rooms: 3</td>
<td>horseback riding</td>
</tr>
<tr>
<td># of breakout rooms: 3</td>
<td>bicycle trails</td>
</tr>
<tr>
<td>size of largest meeting room: 3000 square feet</td>
<td>kayaking tours</td>
</tr>
<tr>
<td>ceiling height: 14 feet</td>
<td>walking trails</td>
</tr>
<tr>
<td>classroom style capacity: 130</td>
<td>garden tours</td>
</tr>
<tr>
<td>theater style capacity: 330</td>
<td>Riverfront Lodge access (towels, drinks, movies, lawn + board games)</td>
</tr>
<tr>
<td>reception capacity: 250</td>
<td>Art Exhibits (ongoing + often free to public)</td>
</tr>
<tr>
<td>banquet capacity: 200</td>
<td>“Cocktails + Camellias” - seasonal mix + mingle (4:00pm - 6:00pm</td>
</tr>
<tr>
<td># of 10x10 booths: 10</td>
<td>Wine Tasting + Tours (monthly</td>
</tr>
<tr>
<td># king rooms: 16</td>
<td></td>
</tr>
</tbody>
</table>
1 — apartment plan with golden ratio proportion overlay studies

2 — enlarged detail view of the exterior facade of six apartment units facing open courtyard

1 — exterior apartment entry steps
2 — bathroom tub + window detail
3 — interior apartment including bed, bath + lounge
4 — interior view of custom hearth
5 — interior apartment towards bed with custom wooden louvers
6 — interior apartment towards bath with custom wooden louvers shades
**VOID FORMS**

- *Dynamic elements will shift the entire space* - red highlights the solid plan/masses - orange the void spaces - third column overlaps the two

- Vertical movement is very effective enhancing compression and release at various platform positions.
- Creates different usable horizontal areas.
- Small, multi-functional space enhanced by fixed elements surrounding platform.

Translate apparent obstacle (mobility of paralyzed client) with new perspective; challenge becomes central focus for creative design solution (3-story).

**STRATEGIC VIEWS**

1. *Exterior image of porthole windows + plan from Metalocus annotated to show movable walls + pivoting doors on top floor, children’s area in comparison with the static, rigid geometric walls in the parent’s area.*

2. *Back lighting strategies: layers, diffusion, pattern (on all planes).*

3. **THREE DIAGRAMS by EVAN SHEN**
   - Sections coordinate to plan around three facades.
   - Elevations explain height placement for each porthole to allow for specific views for the specific person in a specific action (sitting/wheelchair, lying down, standing, walking).

- Relative holes
- Dynamic holes
- Revealing holes
PRECEDENTS | MAISON BORDEAUX

CURTAIN “WALLS”

adaptable to climate + seasons
- warm light vs cool light
- extra track on southern facade for gray netting (originally jute); used to filter view + sunlight, creating additional in-between space on terrace
- magnify, soften, “diffuse” emotions/feelings:
  - moveable shadows dancing throughout the day given constant motion (breeze), often creating shapes that highlight paths or point towards something specific
- literal visual of outside | inside relationship:
  - the warmth, organic, tactile natural world opposing man-made machine with rigid geometries:
    - disciplining, cold reflective surfaces
  - transparent vs opaque; reflective vs matte
  - contrast of geometries emphasizes differences in floors two + three, and solid/void relationships
  - cocooning effectively hugging when closed; expansive when open
- combination works well to balance sight lines created by geometric walls with softness of fabric
- scale in relation to elevation to maximize the particular views intended + proportioned to stairwell, doors, portholes, courtyard, driveway, movable platform
- directing circulation, but offering options + choice
- acoustic comfort (considering activities enhanced by silence/privacy or vice versa)

1 — all images + diagrams from Inside Out, the Dutch fabricators of all custom curtains throughout project
**PRECEDENTS | MAISON BORDEAUX**

**CURTAIN “WALLS”**

- All circular elements in house are movable or stairs = moving circulation
- Circular design language enhanced with curved track systems
- By nature of curtain function - compression and release; layers of privacy; visually compressed creates pattern and playful curves along implied joints (floor + ceiling); pulled flush = sleek and mimicking the form language of the solid planes
- Surrealist qualities; light enhances dream world - materials keep you there
- Material selection for bedroom terrace curtain; mimicking reflective stairwell, but reinterpreted and further distorting view
- Horizontal slit in light blue + grey lacquer allows for delicate view outwards while penetrating daylight bounces on the curtain’s oily, reflective surface
- White cotton horizontal slit reflects bright southern light outwards > diffuses inwards
- Reflecting sun for light/temperature comfort
- Decorative fun
- Controlling light
- Maximizing impacts; lower views from sitting or laying positions considered as opportunities for unexpected views + decoration through shadow
- Client wanted ability to shut out light from changing angles throughout the day

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Photo via Inside Outside – all images + diagrams from Inside Out, the Dutch fabricators of all custom curtains throughout project
KEY:

1 – SITE (First Unitarian Universalist)
2 – CARILLON NEIGHBORHOOD
3 – BYRD PARK – Vita Trail
4 – BYRD PARK – Swan Lake
5 – CARILLON MEMORIAL
6 – DOGWOOD DELL
7 – MAYMONT
8 – CARYTOWN
9 – VMFA + MUSEUMS
10 – RETREAT HOSPITAL
11 – CITY STADIUM
12 – FARMER’S MARKET
13 – I-195 DOWNTOWN EXPRESSWAY
14 – HIKING TRAILS

NEIGHBORHOOD CONTEXT

1 - FROM DOUGLASDALE TOWARDS CARILLON
2 - FROM PARKING TOWARDS DOUGLASDALE
3 - ACROSS BLANTON AVENUE TOWARDS VITA TRAIL, PARK + CARILLON MEMORIAL
NEIGHBORHOOD HISTORY

The Carillon Historic District now comprises nearly 150 acres three miles west of downtown Richmond. Originally gifted by the “founder” of Richmond, William Byrd, to his son, and subsequently changing ownership a few times before a long use as a high school building in the early 20th century. They remained until the mid-1870s, when 3-4 acre parcels were sold to developers, whose bending Blanton Avenue served as the dividing line for the properties; Mann and Brown purchased the property. They built what is known as “Blanton House,” in 1871 for Richmond City’s Department of Parks and Recreation offices. Blanton House was designed by local architect D. Wiley Anderson, known for his large scale neoclassical residences along Monument Avenue and several other in the Carillon District.

The mid-1870s was transformational to the area. Richmond City built a four million double reservoir and park on the adjacent land to the east of the district. It now totals over 300 acres, three lakes, pedestrian walkways, carriage roads, pump house, sports fields, and more; it was a beacon for visitors and attracted even more once the once inner-city line extended to connect the area in 1870. Throughout the early 1900s, wealthy city dwellers started building country estates; many were strongly influenced by the popular Colonial Revival style, but there are examples of nearly every revival style including Georgian, Italianate, French, Tudor Dutch Revival house shown in image 3, with a few Arts and Crafts and American Four-Square homes. Architectural variety continued throughout the early 20th century. They remained until the 1880s, when 3-4 acre parcels were sold to developers, whose bending Blanton Avenue served as the dividing line for the properties; Mann and Brown purchased the property. They built what is known as “Blanton House,” (image 1) now home to Richmond City’s Department of Parks and Recreation offices. Blanton House was designed by local architect D. Wiley Anderson, known for his large scale neoclassical residences along Monument Avenue and several other in the Carillon District.

The 1930s saw some slowdown caused by the Great Depression. The 1940s-50s saw the return of soldiers from World War II and the GI bill. Popular styles were half Cape Cod and two-story Colonial Revivals made of brick, wood and slate on the northern part of the district (currently French, Georgian, Federal Styles are examples). Civil Rights Movements dominated this decade. John B. Cary Elementary School was built in 1954, a model school that brought new energy to the neighborhood; it shared the southern part of the block with Ranger Playground (ca. 1940). The Civil Rights Act of 1964 finally outlawed major forms of discrimination against minorities. In 1967, the first African American purchased property in the neighborhood. With the displacement of over 20,000 African Americans through the completion of the interstates and the 1968 Fair Housing Act, several relocated to the house north of Douglasdale. “White Flight” was rapid, with over a third of the neighborhood changing races within eighteen months. Tensions were high, but several in the neighborhood rallied together with the mission of getting along. 1968 established Carillon Civic Association (CCA), which continues to play an important role in activism + community. Two non-residential buildings were built in the neighborhood in the 1970s; the current Unity Church, and in 1972, the first Unitarian Universalist church, dedicated there.

In 1972, the CCA sponsored its first outdoor art show on the Carillon grounds in Byrd Park, known as “Arts in the Park.” The weekend event was conceived as a way to bring residents together for a joint project, while showcasing the interracial community. The success of the show spurred it on an annual basis, growing into a national event with artists from all over the country traveling to sell and exhibit their work. They have used the proceeds for neighborhood beautification and established an ongoing philanthropic mission that has supported over 130 local charities and organizations. The Carillon District was one of the few neighborhoods not destroyed, and perhaps slightly benefited. By the 1970s construction of the Downtown Expressway (to the north) and the Powhite Parkway (to the west); the interstates created an enclosure in tandem with the southern river border and Byrd Park to the east lending to the quiet, protected nature of the neighborhood. It continues to remain all residential houses—a diverse mix of demographics, social and economic status, occupations, races, genders, and orientations harmoniously together continuing the legacy developed by the early residents who prioritized community, equality, inclusion, and guardianship of their natural surroundings. Arts in the Park continues to thrive, and the lakes, green spaces, sports facilities, and proximity to Maymont, the James River Park System, and Carytown draw in visitors near and far on a daily basis.
The First Unitarian Universalist Church opened its doors in 1972, where it continues to serve the fellowship and surrounding community today. The site was selected for its prominent location on the edge of the racially mixed Carillon neighborhood after moving from its original location in the Fan. They wanted to continue their progressive missions for equality, and were intertwined with the CCA, offering time, administrative support, and hosted monthly association meetings throughout the seventies. The congregation chose German born, Harvard School of Design educated Modernist architect Ulrich Franzen with the intention of a sleek new home that was representative of their progressive tastes. Franzen also designed the local Philip Morris buildings along with various notable projects across the country, including many residential houses throughout his career.

The church was built during a time when Modernism was being questioned and diverging architecture was beginning to emerge, but it remained true to a Brutalist style through form and materials. The single story (partial basement for mechanical and storage) structure is comprised of twenty large concrete block piers around the exterior (one interior) oriented in an “L” shaped, allowing for a central courtyard. The visual weight of the piers lends a sturdy, protective, and private sensibility. This is contrasted with simple storefront walls, angled clerestory windows, and wood beams, offering a straightforward character and lightness to balance the heavy concrete masses. The simple, raw materials and use of functional daylight are clear references to Louis Khan’s strategies explored in his recently completed First Unitarian Church and School in Rochester, New York (1959-1969). There are also nods with the concept of interior service spaces and interior ‘served’ spaces (meeting rooms, art galleries, children’s center) that align with Kahn’s work.

The building has undergone small renovations and updates. In 2019, it won the American Institute of Architects’ Virginia Chapter “Test of Time” Award which is presented to “a building between 25-50 years old that has served its tenants and the wider community admirably” (O’Keefe, 2019). The AIA referenced the building’s strong geometry and clear construction logic to its enduring aesthetic and complimented Quinn Evans Architects for their sensitivity in the recent renovations.

**BUILDING HISTORY**
- CMU - 8 x 8 cement block
- wooden beam system (MOP)
- glass (storefront panels, sloped windows, clerestory windows, some doors)
- aluminum (storefront mullions, exterior doors)
- bluestone (exterior courtyard)
AMBIANCE + ACCESS

SUN STUDIES

KEY:
- PRIMARY NOISE - VEHICULAR (coming from Blanton Avenue + park)
- SECONDARY NOISE - VOICES (coming from park/lawn, playing fields)
- transportation: VEHICULAR
- transportation: WALK
- transportation: BIKE

WINTER SOLSTICE
sunrise: 7:20am  sunset: 4:55pm
8 am: 5.83°  |     az  125.5° (shadow 9.79 m)
12 pm: 29.22° |     az  177.88° (shadow 1.80m)
4 pm: 8.51°  |     az  231.63° (shadow 6.68m)

SPRING/FALL EQUINOX
sunrise: 7:08am  sunset: 7:25pm
8 am: 9.39°  |     az  95.78° (shadow 6.05 m)
12 pm: 49.63° |     az  149.65° (shadow .85m)
4 pm: 37.8°  |     az  235.91° (shadow 1.29m)

SUMMER SOLSTICE
sunrise: 5:49am  sunset: 8:35pm
8 am: 23.27°    |     az  77.52° (shadow 2.33 m)
12 pm: 69.15° |     az  127.45° (shadow 38m)
4 pm: 51.71°  |     az  240.53° (shadow 79m)
Birds are visible signs of invisible forces. Universal symbols of independence + freedom, their ability to fly also associates birds as the bridge between heaven + earth.

The peacock’s specific connections to pride, regrowth, integrity, and passion are all perfect parallels to reclaiming the dignity that is often lost as we age. In many cultures, they are considered sacred and worshiped for their inherent beauty + majestic qualities. They are often reminders to let go of the old to make room for the new, as they shed their feathers annually. Materials and color; their optimized feather structure and golden proportions will inform spacial design solutions to help create an enchanting rhythm that re-energizes the spirit.
CONCEPTUAL DRIVERS

THE BUILDING
1. it needs rhythm through geometric repetition.
2. it needs light to define space + add wonder.
3. it needs simplicity in materials.
4. it wants to be prominent yet unassuming.
5. it wants more interaction with nature.

THE PROGRAM
1. it needs to balance public + private.
2. it needs to promote movement + relaxation.
3. it wants overlaps + economy.
4. it needs to be autonomous.
5. it needs to promote engagement with self, health, neighbors + neighborhood.

THE USER
1. they need to feel safe, secure, + supported.
2. they want to relax, socialize, + enjoy.
3. they need third places + activities.
4. they want to leave optimistic + confident.
5. they want to learn new ways of doing things + be introduced to healthier habits.

THE DESIGNER
1. I need order + simplicity.
2. I want to engage emotions.
3. I want to streamline for efficiencies.
4. I want to encourage innovation.
5. I need color.

opposite:
1 — feather concept model iterations using overlapping or void spaces
2 — conceptual drivers
3 — golden ratio studies illustrating connecting irises during mating display + detail view of golden ratios within the single tail feather to create the striking eye + color transitions within each feather
movement
migration
evolution
dynamism
motility
mobility
journey
gesture
step
shift
progression
passage
voyage
stir
regression
evolve
roam
familiar
pattern
expected

driver: RHYTHM

organic:
comforting:
calm
surface
texture
tactile
pure
series
serenity

density
harmony
scale
balance

progression:
regression:
organic
migration
mobility
motility
gesture
step
shift

motion
migration
evolution
dynamism
motility
mobility
journey
gesture
step
shift
progression
passage
voyage
stir
regression
evolve
roam
familiar
pattern
expected

driver: NATURE

growth:
universe
connection
competition
variety
shape
shade/shadow
color

density
harmony
scale
balance

evolution:
regression:
organic
migration
mobility
motility
gesture
step
shift
progression
passage
voyage
stir
regression
evolve
roam
familiar
pattern
expected

driver: EFFICIENT

able:
decisive
economic
shrewd
organized
deft
productive
powerful
energetic
capable
adequate
neatly

density
harmony
scale
balance

journey:
gesture
step
shift
progression
passage
voyage
stir
regression
evolve
roam
familiar
pattern
expected

driver: WELLBEING

benefit:
prosperity
happiness
contentment
fulfillment
peace
delight
composure
bliss
tranquility
serenity
repose
facility

growth:
universe
connection
competition
variety
shape
light
shade/shadow
color

density
harmony
scale
balance

concepts:
1 — overlapping geometries to create subdivided spaces looking at negative/void spaces
2 — conceptual drivers, continued
3 — using only proportional squares to towers, layering studies to create 3-dimensional spaces demonstrating idea of “floating” like a feather through central spine
PRIVATE PATIO
- encourage time outdoors for various activities
- relaxing (lounge seating, fire feature, shade)
- biophilic strategies (landscaping); consider gardening
- dining (table with accessible height table - various seating)
- space for yoga

ENTRY
welcomed into open concept living/dining from entry; taking advantage of grand entry with higher ceiling heights + incorporating universal design considerations:
- view out
- lever/key-less entry
- height of fixtures + lighting
- 36” door + path
smart home features:
- camera
- doorbell
- smart door
- key-less lock
- interior smart curtains for layers of privacy + separation between entry + living spaces with more open plan layouts

KITCHEN + DINING
often most used + occupied space in homes, so taking advantage of the natural diffused light from clerestory and higher ceiling height
- universal design considerations:
  - 48” path
  - under counter appliances
  - drawers vs. doors
  - clear under counter sink + cook top access
  - adjustable casework + counters
- smart home features:
  - adjustable casework + counter
  - smart faucet
  - integrated induction cook top
  - smart fridge

LIVING SPACE
built in custom furniture speaking to building language/ideals + also safer to minimize additional harm from movable furniture in event of a fall, meant for socializing + relaxing with open plan concept with kitchen + entry
universal design considerations:
- turning radius
- built-in furniture + lighting
smart home features:
- smart bed
- smart curtains
- ceiling lift (track system)
- smart lighting
- smart mirror

BEDROOM
diffused light from sloped bay windows with views toward landscaped patio
universal design considerations:
- integrated grab bars
- built in seating (in shower)
- under counter clearance
- right height switches, fixtures + full length mirrors
- walk-in tub (where applicable)
smart home features:
- mirror
- scale/scanner
- faucet
- toilet

BATHROOM
add natural lighting to interior space through skylight; wet room to minimize transitions + increase ease of everyday activities
universal design considerations:
- integrated grab bars
- built in seating (in shower)
- under counter clearance
- right height switches, fixtures + full length mirrors
- walk-in tub (where applicable)
smart home features:
- mirror
- scale/scanner
- faucet
- toilet

PRIVATE SPACES
PROGRAM SUMMARY | PRIVATE SPACES

ENTRY
welcomed into open concept living/dining from entry; taking advantage of grand entry with higher ceiling heights + incorporating universal design considerations:
- view out
- lever/key-less entry
- height of fixtures + lighting
- 36” door + path
smart home features:
- camera
- doorbell
- smart door
- key-less lock
- interior smart curtains for layers of privacy + separation between entry + living spaces with more open plan layouts

KITCHEN + DINING
often most used + occupied space in homes, so taking advantage of the natural diffused light from clerestory and higher ceiling height
- universal design considerations:
  - 48” path
  - under counter appliances
  - drawers vs. doors
  - clear under counter sink + cook top access
  - adjustable casework + counters
- smart home features:
  - adjustable casework + counter
  - smart faucet
  - integrated induction cook top
  - smart fridge

LIVING SPACE
built in custom furniture speaking to building language/ideals + also safer to minimize additional harm from movable furniture in event of a fall, meant for socializing + relaxing with open plan concept with kitchen + entry
universal design considerations:
- turning radius
- built-in furniture + lighting
smart home features:
- smart bed
- smart curtains
- ceiling lift (track system)
- smart lighting
- smart mirror

BEDROOM
diffused light from sloped bay windows with views toward landscaped patio
universal design considerations:
- integrated grab bars
- built in seating (in shower)
- under counter clearance
- right height switches, fixtures + full length mirrors
- walk-in tub (where applicable)
smart home features:
- mirror
- scale/scanner
- faucet
- toilet

BATHROOM
add natural lighting to interior space through skylight; wet room to minimize transitions + increase ease of everyday activities
universal design considerations:
- integrated grab bars
- built in seating (in shower)
- under counter clearance
- right height switches, fixtures + full length mirrors
- walk-in tub (where applicable)
smart home features:
- mirror
- scale/scanner
- faucet
- toilet
PROGRAM SUMMARY | PUBLIC/SHARED SPACES

CAFE + DINING PATIO
indoor or outdoor seating; potential for more formal “table service” on patio, but generally very informal coffee shop/cafe for the park + neighborhood to create a third place; some built in seating + some movable pieces with varying levels of shade. Surrounded by half height green fence for some privacy while maintaining views toward Carillon + shared courtyard. Ceiling height emphasized through custom light fixture with acoustic sheers and skylights to create “feather” shadows with bamboo dropped ceilings for more intimate spaces that continue to draw your eye out.

KITCHEN + BACK OF HOUSE/OFFICE
ordering counter on interior mirrored on exterior in Blanton Avenue alcove (walk-up/pick-up window); more storage + refrigeration necessary given nature of offerings - does not require full commercial kitchen as food prepared off-site through local vendors.

SHARED COURTYARD
extension of the interior lounge space, encouraging customers and renters to spend time outdoors; variety of seating (soft/lounge seating, with additional flexible desk/dining/counter height tables for working or snacking). Northwest corner offers flex space for small yoga classes to expand outside or possible for occasional live music or demonstrations. Green fence used to screen for visual + acoustic privacy from adjacent Blanton Avenue, a main thoroughfare.

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GYM + YOGA SPACE
given the importance of physical activity for this demographic, an entire wing of the building is dedicated to fitness. Progressing from small group yoga studio, private yoga studio, open gym with smart equipment, and terminating with the swim spa. Accessible restrooms + changing rooms placed with convenience + privacy considerations.

RECEPTION + SHOWROOM
two reception areas flank the interior corridor at Garrett Street + Douglasdale Avenue to orient cafe + rental patrons from either entrance with built in seating. Douglasdale entrance adjacent to two-bedroom suite, which can flex as a complete model home for exposure to the most smart home devices + aging in place solutions; additional space in proximity available for a true retail “showroom” for smaller devices to compare brands.

BATHROOMS + STORAGE
important to have generous clearances + universal/ADA principles driving restroom spaces, using finishes + ceiling heights to elevate design. Important to have ample outdoor storage space, so two towers have been dedicated (one adjacent to patio, one adjacent to courtyard) to ensure proper tools and storage are nearby.
<table>
<thead>
<tr>
<th>Program Area</th>
<th>Type</th>
<th>Gender</th>
<th>No.</th>
<th>Occupancy</th>
<th>Area</th>
<th>FF&amp;E</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Entrance + Closet</td>
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<tr>
<td>Living Room / Lounge</td>
<td>Socializing, relaxing, reading, TV, entertaining</td>
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<tr>
<td>Private Suite - Double (2 BR)</td>
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<td>Janitorial Closet, Washer/Dryer</td>
<td>Do we need</td>
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<tr>
<td>Neighbors, Informal Meetings, Watching TV, Entertaining</td>
<td>(External users - family, friends, rental guests + cleaning service)</td>
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**Notes:**
- The table data represents programming matrix information for different areas within a building, including occupancy, area, and notes.
- Columns include program area, type, gender, number, occupancy, area, FF&E, and notes.
- The table includes details for various areas such as entrance, closet, living room, lounge, private suite, restrooms, and more.
- Each area has specific details regarding the number of occupants, area requirements, and notes on FF&E and special considerations.
BLOCK PLAN - PROGRAM SCHEMES

PLAN PROGRESSION - FURNITURE
GOLDEN RATIO STUDIES

existing building had very straightforward plan; after several parti studies, found golden ratio relationships as a primary strategy for design decisions by the architect:

- placement of doors
- placement of windows
- placement of walls
- scale & repetition of established modules creating rhythm throughout building
- proportions of windows to walls
- proportions of mullions
- wall, tower + ceiling heights (proportions to each other)

1 — EXISTING PLAN STUDY

2 — PUBLIC SPACES - café + courtyard

mirror study to help establish main entrance through central tower from Blanton Ave

3 — BUILDING study with private + public joined together to help inform wall, fixture + furniture placements for the apartments

1 — PUBLIC + PRIVATE - progression from largest public space (courtyard) to gym (gives largest private space: two-bedroom apartment) to help inform placement for programmed spaces + fixtures

2 — PRIVATE + PUBLIC - one bedroom apartment, circulation space + café comparisions

3 — BUILDING study with private + public joined together to help inform wall, fixture + furniture placements for the apartments
PRIVATE SPACES

1 – plan iterations finalizing room + furniture placement with ada considerations.

opposite:

2 – apartment perspectives working through wall placement for kitchen to improve function + views.

3 – apartment patio + exterior entry developments; trying to finalize shaped window bay adjustments + built in furniture to enhance indoor/outdoor living concept.
PUBLIC SPACES

opposite:
1 - plan development with golden ratio informing courtyard furniture placement
2 - cafe patio perspective with lounge chat groups adjacent to Garrett Ave. near Carillon + dining seating with pocket doors into cafe
3 - line drawing with cafe bar seating groups with view towards cafe patio to right
4 - EXTERIOR ELEVATION - front rendering, using idea of camouflage of feathers to blend in with park
ARONSON WOODWORKS
CUSTOM PARSONS TABLE
ash | pitch claze finish
LOCATION: cafe dining

JANUS ET CIE
INLAY STOOL/SIDE TABLE
limestone + periodite
LOCATION: cafe, lounge + courtyard

JANUS ET CIE
BRANCH SIDE CHAIR
powder coated aluminium + poly fiber straps
LOCATION: cafe patio, cafe + courtyard

JANUS ET CIE
GIGI DINING CHAIR + COUNTER STOOLS
woven synthetic fiber + powder coated steel
LOCATION: cafe, courtyard

VANGUARD FURNITURE
BRANDT SOFA
ash [film noir finish]; inside out rollo black fabric
LOCATION: cafe lounge

Cafe Perspective - From Blanton Avenue Entrance

Furniture Plan
**LIGHTING FIXTURES**

**ACOUSTIC CEILING FEATURE WITH INTEGRATED COVE LIGHTING + CARNEGIE FABRICS SINFONICOUSTIC SHEERS**

layout references golden ratio curves filling space above dropped ceilings flanking south/north glazed walls + taper towards central skylight over live tree

100% Trevira CS Polyester; slight sheen will graduate up multi layered drops in conceptual colors towards skylight, similar to the Perkins + Will project shown above left, but will have more layers + more dramatic height variations. LED cove lighting tunable to variety of saturated colors for events.

**MANUFACTURER:** ESTALUZ  
**STYLE NAME:** GBT-T-3225 + GBT-T-3224 LAMP  
**MATERIAL/FINISH:** matte gold (81) | matte white (79)  
**LOCATION:** interior circulation corridor + cafe  
**NOTES:** adjustable height, dimmable LED indirect

**MANUFACTURER:** ARTERIORS HOME  
**STYLE NAME:** ASHBRURN PENDANT  
**MATERIAL/FINISH:** wicker | java  
**LOCATION:** cafe dining + lounge area  
**NOTES:** scale + texture to create layered volume

**MANUFACTURER:** ESTALUZ  
**STYLE NAME:** PARMA SERIES  
**MATERIAL/FINISH:** matte black metal  
**LOCATION:** exterior walls  
**NOTES:** indirect/direct light

**MANUFACTURER:** DELTA LIGHTING  
**STYLE NAME:** SPLITLINE TRACK SERIES  
**MATERIAL/FINISH:** matte black  
**LOCATION:** apartments - throughout + gym/yoga  
**NOTES:** multiple direct fixtures compatible with recessed configurable track

**MANUFACTURER:** ESTALUZ  
**STYLE NAME:** ORION SERIES  
**MATERIAL/FINISH:** matte black metal  
**LOCATION:** cafe dining + lounge area  
**NOTES:** adjustable height, dimmable LED indirect
MATERIALS – PUBLIC SPACES

A – ARONSON WOODWORKS
ash | pitch finish
location: cafe dining tables

B – PORTOLO PAINTS
roman clay finish | shining
location: cafe + corridor

C – PORTOLO PAINTS
limewash finish | wellfleet
location: apartment bedroom walls

D – IDYLLIUM
montenapoleone | calatorao intenso
location: public space counter tops

E – FARROW + BALL
acid drop | modern emulsion finish
location: gym, bathroom accents

F – CARNEGIE FABRICS
Sinacoustic
location: custom ceiling fixture (cafe)

G – BAMBOO REEDS
natural
location: cafe dropped ceilings

CAFE PERSPECTIVE – towards cafe patio entrance + garnet street beyond
SECTION PERSPECTIVE - FROM BLANTON AVENUE | PUBLIC SPACES

cafe, patio, cafe, lounge, courtyard, private yoga, gym

longitudinal section perspective with cafe, courtyard, gym
1 – CAFE PATIO – from garage to towards side entrance with more formal dining seating; continuous flooring from cafe patio to indoor through to courtyard; fixed curtain walls with minimal mullions to maximize view + less energy required to condition interior space referencing existing fixed glazing.

2 – COURTYARD – from cafe entry/exit towards Douglasdale road with variety of hard + soft seating configurations; surrounded by live green fence for acoustic + visual privacy + plantings.

3 – FITNESS WING – from yoga towards swim spa (frosted glazing not shown to illustrate spaces beyond).

POWER PLATE
medically-certified harmonic vibration plate; engages osteoblasts the stimulate bone building; reducing fall/ fracture risk; more efficient than traditional exercise – amplifies benefits with smaller movements + without weights for safer workout; improves circulation, posture, balance, muscle strength + lean muscle mass.

PELOTON
low impact cardiovascular + added strength benefits; improved joint mobility + kinesthesia (awareness position/movement of body in space); variety of fitness levels + senior specific classes offered online.

the MIRROR
no weights or equipment required, it steams more than 70 live classes per week ranging from yoga + barre to cardio boot camp + kickboxing; its two-way camera for one-on-one personal training sessions.

TONAL
magnets and electricity to simulate a weight-lifting experience with up to 200 pounds of resistance prevent injury for someone who isn’t as used to working out.
online classes + personal trainers available to help build strength remotely.

TONAL
1 – APARTMENT INTERIOR
ENTRANCE – with views towards courtyard, wall color + change in lighting fixture to help with wayfinding

2 – TRANSVERSE SECTION – from garnet avenue [private patio, apartment, corridor, cafe, blanton avenue entrance]

1 – APARTMENT PATIO + EXTERIOR ENTRY – from parking lot with green fence, potted pea gravel continuous surface + built in seating that transitions from the indoors out

2 – APARTMENT PRIVATE - clerestory with diffused northern light through kitchen + living space
MATERIALS – PRIVATE SPACES

A – WELLBORN + WRIGHT
white oak | Azobak finish
location: cabinets/casework

B – WELLBORN + WRIGHT
white oak | Harrison finish
location: bedroom millwork

C – PORTOLO PAINTS
limewash finish - wellfleet
location: bedroom walls

D – SMITH + NOBLE
hambrun - flint
location: bedroom sloped shades

E – FLOR CARPET TILE
hambrun - flint
location: bedroom floor

F – JOYLUM
calacutta aureo duoma ceramic
location: countertops

G – AMORIM WISE CORK FLOORING
realistic cork
location: living, kitchen, circulation

1 – view from interior entrance hallway towards kitchen island, living room, through towards private patio
2 – fluted tambour lazy susan detail with accessible height counters [can be used for storage or additional knee space for accessible height seating]
3 – kitchen perspective towards laundry closet
A – Adjustable height countertops
   – Linak baselift
B – Under counter refrigerator + freezer
   appliance drawers + allow for the add 9” toe-kick for accessibility
C – Custom sliding tambour style lazy susan storage (or leave open for more knee space at accessible counter height)
D – Underlayment smart sensors
   – Shaw Sole SenseFloor; unobtrusive connected technology to track movements, fall alerts, activate automated lighting
E – Movable shelving:
   – Granberg
   – Vert; lowers shelves vertically down without opening doors (or open shelves as shown; mechanism hidden with decorative wooden slats here), allows workspace in front of shelves on counter when lowered
F – Movable storage/casework:
   – Granberg
   – Diagio 504; lowers entire cabinet diagonally downwards + forwards to front of worktop
G – Fisher + Paykel single drawer under counter dishwasher – easier to load/unload; water/energy efficient to run more frequently with smaller loads
H – Smart faucet; temperature + volume with motion or voice controls; can work in tandem with smart sensors to detect leaks (with 5-6” sink depth for accessibility)
I – InvisiCook; integrated induction cooktop to reduce burn risk, easier cleaning + more counter work surface in smaller kitchens
J – Tambour door fronts [side sliding self-storing for open knee space below cooktop + sink]
K – Pull out counter beside oven (at or near counter height); wall mounted ovens should be placed with most used shelf aligned with counter height

KITCHEN FF+E NOTES + SMART DEVICES + ACCESSIBLE SUGGESTIONS

opposite:
1 – KITCHEN SECTION – stand detail towards entry + living space
2 – KITCHEN SECTION – wall detail from entry + living space

1 1/2” recommended countertop thickness
1. bedroom perspective with custom millwork towards closet & bathroom door

2. BEDROOM SECTION - towards storage wall with details for ceiling lift

opposite:
3. enlarged 2-bedroom plan detail

4. sloped window bay detail with smart curtain + view towards private patio

---

**Smart Devices & Accessible Suggestions**

A. smart shades (multiple manufacturers): wide variety of materials, styles + applications that can be connected for automated schedule, adjustable to maximize light + weather changes for more efficient heating/cooling of space

B. custom millwork: in coordination with recessed track system for portable ceiling lift; ergonomic, fluted detail of millwork allows for unobtrusive easy opening if not using actuator to eliminate injury hazards on cabinet pull

C. Granberg Butler 720: height adjustable wardrobe rail; clothes rail lowers and raises in an arc movement, and features an anti-collision safety stop feature. Discreet and very quiet; ideal for seated users, or for those with limited reach ranges.

D. Samsung Airdresser: steam closet to reduce ironing hazards such as burns, trips + fires; sanitizes for better hygiene

E. Quai Smart Mirror: automated dimmable + tunable LED sidelights with automated nightlight, anti-fog feature, smart glass with calendar, weather, reminder functions - full integration with Alexa assistant + most smart personal hygiene items

F. smart faucet (many manufacturers): motion or voice activated faucet with connected features for temperature control + remote use

G. Kohler EIR or other bidet/smart toilet: self-cleaning function uses UV light and electrolyzed water systems to automatically clean the wand surfaces, automatic deodorization system, seated seat with adjustable temperature settings, motion-activated, hands-free opening/closing of cover, quiet-close elongated comfort height seat, LED lighting illuminates the bowl to serve as a nightlight

H. Withings BodyScan: smart scale with handle allows the user to get much more accurate body composition measurements. It also enables segmental body composition for which users get fat & muscle mass of each body part: torso, legs and arms. The handle also contains the electrodes needed to record the 6-lead ECGs
I have been so humbled these past few years by the unrelenting dedication of all of my professors + classmates alike. Each has embodied me to redefine my values + reshape my purpose. The final thesis presentation felt like a new beginning. There was thoughtful + personal dialogue as many professors seemed to relate, whether serving as caregivers or looking towards their own future plans. Questions about ease of use and maintaining or updating ever-changing technologies arose; reminders about how critical the introduction + welcome moments would be to minimize any negative feelings that often accompany the unfamiliar. There were talks of staging versus a more integrated invitation to engage with the smart devices, and how wayfinding could help further address this. We also discussed the relevance of smart home innovations while noting the fleeting nature of any commentary on technology; this project was out of date as soon as it printed, but it can still serve as a timestamp for early automation investigations, specifically to benefit this demographic.

When getting into specifics, Camden touched on my biggest obstacle, which held the entire project back. I didn’t look past small code requirements or look back to my building when making adjustments to the sloped window bays, which wreaked havoc on my big idea + the overall space planning in the apartments. I wasn’t satisfied with the solutions shown here, which kept me away from fully realizing many ideas + the current renderings hardly illustrating my intentions. But, a small question about a door allowed the fundamentally simple question of ‘why not?’ to be expanded upon so eloquently:

“Give yourself the latitude to ask the fantasy questions... then go figure them out!”

- Camden Whitehead

This lasting guidance will forever reinforce the importance of simultaneously trusting my intuition while addressing any and all things with a beginner’s mind.

1 – thesis presentation posters; 4’ x 9’
exhibition at Page Bond gallery
[May 13th, 2022]
<table>
<thead>
<tr>
<th>STYLE NAME</th>
<th>MANUFACTURER</th>
<th>DESCRIPTION</th>
<th>MATERIAL</th>
<th>FINISH</th>
<th>SUSTAINABILITY</th>
<th>NOTES + RATIONALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panini Side Chair</td>
<td>Janus et Cie</td>
<td>woven back side chair with herringbone central spine pattern over metal frame</td>
<td>powder coated aluminum + polyethylene fiber</td>
<td>Palladium/Limestone, Bamboo/Limestone</td>
<td>Fibers are colorfast, UV- and stain-resistant + 100% recyclable; good choice for humid environments, and installations in a range of temperatures for longest life cycle</td>
<td>References concept with exposed frame + ventral spine with layering pattern; higher seat height for ease of use; sturdy, but movable if needed</td>
</tr>
<tr>
<td>Arbor Square Dining Table</td>
<td>Janus Et Cie</td>
<td>Outdoor wood dining table</td>
<td>Teak</td>
<td>Espresso</td>
<td>FSC certified, but for its durability—its very high oil content prevents rotting + insect infestation; their teak oil is water based eco-friendly formula to add years to life</td>
<td>Wood finish coordinates with interior apartment finishes for cohesive aesthetic across both indoor + outdoor spaces</td>
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</table>
## Duomo Mineral Stone

<table>
<thead>
<tr>
<th>STYLE NAME</th>
<th>MANUFACTURER</th>
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<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>calacatta aureo</td>
<td>idylium</td>
<td><a href="https://www.idylium.com/projects/calacatta-aureo/">https://www.idylium.com/projects/calacatta-aureo/</a></td>
<td>honed white mineral stone with gray, tan + charcoal marbling + veining throughout</td>
<td>apartment counter tops</td>
<td>incredibly durable for extended life cycle; 100% biodegradable oxides, clays and feldspars</td>
<td>as cooking hobs with integrated burners; scratch + stain resistant; more hygienic as high-compact, non-porous surface can't host bacteria + fungi</td>
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## Montenapoleone Mineral Stone

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<tbody>
<tr>
<td>calatorao intenso</td>
<td>idylium</td>
<td><a href="https://www.idylium.com/projects/calatorao-intenso/">https://www.idylium.com/projects/calatorao-intenso/</a></td>
<td>ultra-compact, inert, + porosity free mineral stone in honed matte finish; black with white veining</td>
<td>public space counter tops + custom courtyard table tops + apartment bathrooms</td>
<td>incredibly durable for extended life cycle; 100% biodegradable oxides, clays and feldspars</td>
<td>enhanced durability to scratches, stains, heat + environmental factors with UV protection; free of porosity that often host fungi + bacteria</td>
</tr>
<tr>
<td>STYLE NAME</td>
<td>#</td>
<td>DESCRIPTION</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>------------</td>
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<td>-------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modern Emulsion</td>
<td>wimborne white- no. 239</td>
<td>most walls + ceilings (public + private spaces)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**MANUFACTURER**
farrow + ball

**WEBSITE**

**MATERIAL | FINISH**
wimborne white- no. 239

**LOCATION**
neutral white - not too warm or too cool with matte finish to diffuse glare + high contrast; washable, scuff-proof + protected against mold

**SUSTAINABILITY**
contains zero VOCs

**RATIONALE**

### Limewash

**MANUFACTURER**
portolo paints

**WEBSITE**
http://www.portolapaints.com/lime-wash/

**MATERIAL | FINISH**
wellfleet

**DESCRIPTION**
nautical vibrant east coast blue

**LOCATION**
cafe lounge area

due to its high ph, lime wash also acts as a mild fungicide; contains zero vocs; locally sourced materials (>30 miles of la) to minimize carbon footprint

**SUSTAINABILITY**
dries to a lush suede-like finish with subtle movement + natural color variation; traditional lime based coating used for centuries; can be sealed for wipe-able surface

**NOTES + RATIONALE**

<table>
<thead>
<tr>
<th>STYLE NAME</th>
<th>#</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limewash</td>
<td>wellfleet</td>
<td>nautical vibrant east coast blue</td>
</tr>
</tbody>
</table>

**MANUFACTURER**
portolo paints

**WEBSITE**
http://www.portolapaints.com/lime-wash/

**MATERIAL | FINISH**
wellfleet

**LOCATION**
cafe lounge area

due to its high ph, lime wash also acts as a mild fungicide; contains zero vocs; locally sourced materials (>30 miles of la) to minimize carbon footprint

**SUSTAINABILITY**
dries to a lush suede-like finish with subtle movement + natural color variation; traditional lime based coating used for centuries; can be sealed for wipe-able surface

**NOTES + RATIONALE**
<table>
<thead>
<tr>
<th>STYLE NAME</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exterior Eggshell</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MANUFACTURER</th>
<th>farrow + ball</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATERIAL</td>
<td>exterior paint</td>
</tr>
<tr>
<td>LOCATION</td>
<td>cafe lounge area</td>
</tr>
<tr>
<td>SUSTAINABILITY</td>
<td>contains zero VOCs</td>
</tr>
<tr>
<td>NOTES + RATIONALE</td>
<td>used outdoors, makes for a subtle color that mirrors the green of any surrounding foliage; dark tone primer recommended</td>
</tr>
</tbody>
</table>

**DESCRIPTION**

used outdoors, makes for a subtle color that mirrors the green of any surrounding foliage; dark tone primer recommended

**RATIONALE**


<table>
<thead>
<tr>
<th>STYLE NAME</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modern Emulsion</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MANUFACTURER</th>
<th>farrow + ball</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEBSITE</td>
<td><a href="https://www.farrow-ball.com/archived-paint/acid-drop">https://www.farrow-ball.com/archived-paint/acid-drop</a></td>
</tr>
<tr>
<td>MATERIAL</td>
<td>acid drop - no. 9908</td>
</tr>
<tr>
<td>LOCATION</td>
<td>shared restroom accents, gym + yoga</td>
</tr>
<tr>
<td>SUSTAINABILITY</td>
<td>contains zero VOCs</td>
</tr>
<tr>
<td>NOTES + RATIONALE</td>
<td>bright, energetic citrus shade; matte finish scatters + diffuses glare; washable, scuff-proof + protected against mold</td>
</tr>
</tbody>
</table>

**DESCRIPTION**

bright, energetic citrus shade; matte finish scatters + diffuses glare; washable, scuff-proof + protected against mold

**RATIONALE**


<table>
<thead>
<tr>
<th>STYLE NAME</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Oak</td>
<td></td>
</tr>
</tbody>
</table>

**MANUFACTURER**
wellborn + wright

**WEBSITE**

**MATERIAL | FINISH**
white oak | kodiak finish - matte

**DESCRIPTION**
White oak fronts cerused black oak with natural grain visible even on reed + fluting details

**LOCATION**
kitchen cabinets + some custom millwork

**SUSTAINABILITY**
Local manufacturer in Richmond, VA in partnership with local custom cabinet manufacturer (Martin Star) to fabricate custom cabinets with local, customizable, sustainable hardwoods for durability + warmth.

**NOTES + RATIONALE**

---

<table>
<thead>
<tr>
<th>STYLE NAME</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>EcoMax</td>
<td></td>
</tr>
</tbody>
</table>

**MANUFACTURER**
eco surfaces

**WEBSITE**
https://ecosurfaces.com/Products/Wellness/ECOmax

**MATERIAL | FINISH**
mr. slate
black + white recycled rubber flooring

**DESCRIPTION**
Mr. Slate recycling is the process of taking a material at the end of its life and converting it into something better instead of throwing it away - a step further than recycling.

**LOCATION**
gym, yoga

**SUSTAINABILITY**
Force reduction (+ slip resistant to reduce falls), easier on joints + energy restitution with great durability + quick drainage + acoustical

**NOTES + RATIONALE**

---
<table>
<thead>
<tr>
<th>STYLE NAME</th>
<th>WEBSITE</th>
<th>MANUFACTURER</th>
<th>MATERIAL</th>
<th>FINISH</th>
<th>DESCRIPTION</th>
<th>SUSTAINABILITY</th>
<th>NOTES</th>
<th>RATIONALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wise Cork Flooring</td>
<td><a href="https://www.amorimwise.us/products/cork/inspire-700/traces-natural-17">https://www.amorimwise.us/products/cork/inspire-700/traces-natural-17</a></td>
<td>amorim</td>
<td>cork</td>
<td>finish: traces natural</td>
<td>natural cork floors</td>
<td>completely natural raw material; biodegradable, renewable + recyclable; carbon negative with thermal performance properties for less energy loss</td>
<td>softer under feet, but easy to maneuver; wheelchair or walker; natural material adds to biophilic strategies + acoustic performance</td>
<td></td>
</tr>
<tr>
<td>Sole with Sensfloor Technology</td>
<td><a href="https://www.shawcontract.com/en-US/Technical/Sole-with-Sensfloor-Technology">https://www.shawcontract.com/en-US/Technical/Sole-with-Sensfloor-Technology</a></td>
<td>shaw</td>
<td>powder coated steel, janusfiber (polyethylene)</td>
<td>reed (tan) + smoke (dark)</td>
<td>capacitative sensor underlayment connected to unobtrusive under floor technology membrane; compatible with all shaw contract products (hard + soft surfaces); integrates with smart phones and other smart data hubs</td>
<td>all private apartment units</td>
<td>unobtrusive under floor technology membrane; compatible with all shaw contract products (hard + soft surfaces); integrates with smart phones and other smart data hubs</td>
<td></td>
</tr>
<tr>
<td>STYLE NAME</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>inDiego</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**MANUFACTURER**
inDiego

**WEBSITE**

**MATERIAL | FINISH**
metal + plastic

**DESCRIPTION**
shelving unit placed inside cabinet; opens cabinet doors when lowering unit diagonally downwards + forwards to front of worktop

**LOCATION**
apartment kitchen + closet

**NOTES + RATIONALE**
prefer inDiego to allow for fixed undercounter lighting, which is critical for this demographic

---

<table>
<thead>
<tr>
<th>STYLE NAME</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Burner</td>
<td></td>
</tr>
</tbody>
</table>

**MANUFACTURER**
invisacook

**WEBSITE**
https://invisacook.com/the-invisacook/

**MATERIAL | FINISH**
stainless steel

**DESCRIPTION**
under counter two burner induction cooktop

**LOCATION**
private apartment kitchen

**SUSTAINABILITY**
Induction cooktops are more energy efficient + less residual heat to offset than gas (open flame) or electric (indirect - exposed heating elements) cooktops; they eliminate harmful indoor air pollutants emitted by gas stoves (nitrogen dioxide, carbon monoxide, formaldehyde)

**NOTES + RATIONALE**
safer (no open flames or heating elements to minimize injuries or house fires); easier cleaning (no grills/grates - smooth, integrated surface - or more traditional glass cooktops available)
<table>
<thead>
<tr>
<th>STYLE NAME</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Brandt Bench Seat Sofa</strong></td>
<td></td>
</tr>
<tr>
<td>MANUFACTURER</td>
<td>vanguard furniture</td>
</tr>
<tr>
<td>WEBSITE</td>
<td><a href="https://vanguardfurniture.com/styles/sku/V866-2S">https://vanguardfurniture.com/styles/sku/V866-2S</a></td>
</tr>
<tr>
<td>MATERIAL</td>
<td>ash</td>
</tr>
<tr>
<td>FINISH</td>
<td>film noir - inside out performance fabric</td>
</tr>
<tr>
<td>DESCRIPTION</td>
<td>curved back with exposed hardwood frame details on outback with upgraded seat cushion for 21” overall SH</td>
</tr>
<tr>
<td>LOCATION</td>
<td>cafe lounge area</td>
</tr>
<tr>
<td>SUSTAINABILITY</td>
<td>lean domestic manufacturer (within 500 miles) that recycles all post manufacturing waste, solar panel power, green guard gold certified fabric, fsc hardwood frames</td>
</tr>
<tr>
<td>NOTES</td>
<td>custom size, finishes, + COM fabric for unlimited customizable options to fit space</td>
</tr>
<tr>
<td>RATIONALE</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STYLE NAME</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fritz Chair</strong></td>
<td></td>
</tr>
<tr>
<td>MANUFACTURER</td>
<td>vanguard furniture</td>
</tr>
<tr>
<td>WEBSITE</td>
<td><a href="https://vanguardfurniture.com/styles/sku/V1103-CH">https://vanguardfurniture.com/styles/sku/V1103-CH</a></td>
</tr>
<tr>
<td>MATERIAL</td>
<td>rattan mesh, maple solids</td>
</tr>
<tr>
<td>FINISH</td>
<td></td>
</tr>
<tr>
<td>DESCRIPTION</td>
<td>curved frame with woven rattan details + exposed hardwood frame with blend down cushion in performance fabric</td>
</tr>
<tr>
<td>LOCATION</td>
<td>cafe lounge area</td>
</tr>
<tr>
<td>SUSTAINABILITY</td>
<td>life cycle heirloom quality construction back by lifetime warranty; natural materials</td>
</tr>
<tr>
<td>NOTES</td>
<td>handwoven layered rattan with Rattan Mesh exposed supports referencing concept; heirloom quality + made in America (within 500 miles for LEED)</td>
</tr>
<tr>
<td>RATIONALE</td>
<td></td>
</tr>
<tr>
<td>style name</td>
<td>Notes + Rationale</td>
</tr>
<tr>
<td>------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Custom Parsons Table</td>
<td>custom size, finishes - dining + counter heights for same style to unify space; the weight + geometrics reference building, while wood grain references body feathers of peacock</td>
</tr>
<tr>
<td>Cross Base Dining Table</td>
<td>custom size, finishes - dining + counter heights for same style to unify space; the weight + geometrics reference building, while wood grain references body feathers of peacock</td>
</tr>
</tbody>
</table>
### Gigi Bar + Counter Stools

**Manufacturer**: Janus et Cie


**Material & Finish**: Powder coated steel, Janusfiber (polyethylene) | Maple (tan) + Java (dark)

**Description**: Curved back with exposed steel frame supporting outback + feet with woven sculpted seat

**Location**: Cafe dining + courtyard

**Sustainability**: JANUSfiber (high density polyethylene); fibers are colorfast, UV- and stain-resistant, and 100% recyclable. These fibers are a very good choice for humid environments, and installations in a range of temperatures for longest life cycle

**Notes + Rationale**: Natural materials with exposed supports similar to layers of feathers over central spine; adds warmth, texture + lightness to juxtapose building + heavier tables

### Fibonacci Anda Lounge Chair

**Manufacturer**: Janus et Cie

**Website**: [https://www.janusetcie.com/products/fibonacci-anda-lounge-chair-736-82-112-02-00](https://www.janusetcie.com/products/fibonacci-anda-lounge-chair-736-82-112-02-00)

**Material & Finish**: Powder coated steel, Janusfiber (polyethylene) | Reed (tan) + Smoke (dark)

**Description**: Curved back with exposed steel frame supporting outback + feet with woven sculpted seat

**Location**: Courtyard area

**Sustainability**: JANUSfiber (high density polyethylene); fibers are colorfast, UV- and stain-resistant, and 100% recyclable. These fibers are a very good choice for humid environments, and installations in a range of temperatures for longest life cycle
<table>
<thead>
<tr>
<th>STYLE NAME</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scoop Lounge Chair</td>
<td>curved barrel back sculptural lounge chair</td>
</tr>
</tbody>
</table>

**MANUFACTURER**

Janus et Cie

**WEBSITE**

https://www.janusetcie.com/products/scoop-lounge-chair/

**MATERIAL | FINISH**

Polyethylene | Matte anthracite (black) | Matte eggshell (white)

**LOCATION**

Courtyard area

**SUSTAINABILITY**

Extrusion and molding; polyethylene and polypropylene’s strength make them highly valuable materials in creating durable furniture

**NOTES + RATIONALE**

Soft curves but mass references building; lower seating for younger kids or more casual conversations.

**STYLE NAME**

Tao Round Dining Table

**MANUFACTURER**

Janus et Cie

**WEBSITE**


**MATERIAL | FINISH**

Lightened concrete | Wenge (dark) + Linen (light)

**DESCRIPTION**

Cast concrete; each is unique offering softness to the mass + perfect geometries; they will age and change over time.

**LOCATION**

Cafe dining + patio

**SUSTAINABILITY**

High durability; any blemishes will weather to add to imperfect charm, giving it longer life cycle than items where cracks or dents would require replacement

**NOTES + RATIONALE**

Suitable for indoor + outdoor use; each piece is intended to look unique and be placed in a long-standing environment. As such, fissures, texture, and color variations will evolve.
**Branch Stackable Side Chair**

**MANUFACTURER**
Janus et Cie

**WEBSITE**
https://www.janusetcie.com/products/branch-stackable-side-chair-735-05-061-12-12/

**MATERIAL | FINISH**
powder coated aluminium, polypropylene + fiberglass | wenge (dark), linen (light) + white

**DESCRIPTION**
curved back with exposed hardwood frame details on outback with upgraded seat cushion for 21” overall SH.

**LOCATION**
cafe dining, patio + courtyard area

**SUSTAINABILITY**
custom size, finishes, + COM fabric for unlimited customizable options to fit space.

**NOTES + RATIONALE**


**Vino 3-Seat Sofa**

**MANUFACTURER**
Janus et Cie

**WEBSITE**
https://www.janusetcie.com/products/vino-sofa-3-seat/

**MATERIAL | FINISH**
powder coated aluminum + janusfiber ( ), glass (or cushion) top | lava (dark) + nimbus (light)

**DESCRIPTION**
curved back indoor/outdoor sofa open geometric frame to simulate “floating” aesthetic for concept; finish options durable materials with green guard gold certified indoor/outdoor fabric for extended life cycle

**LOCATION**
courtyard area

**SUSTAINABILITY**

**NOTES + RATIONALE**

open geometric frame to simulate “floating” aesthetic for concept; finish options
<table>
<thead>
<tr>
<th>STYLE NAME</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tao Square Cocktail Table</strong></td>
<td></td>
</tr>
<tr>
<td><strong>LOCATION</strong></td>
<td><strong>MANUFACTURER</strong></td>
</tr>
<tr>
<td>cafe lounge area + courtyard</td>
<td>janus et cie</td>
</tr>
<tr>
<td><strong>WEBSITE</strong></td>
<td><strong>DESCRIPTION</strong></td>
</tr>
<tr>
<td><a href="https://www.janusetcie.com/products/tao-cocktail-">https://www.janusetcie.com/products/tao-cocktail-</a></td>
<td>curved square tops with rounded corners; lightness of top balanced by mass of base; can be nested to create rectangles</td>
</tr>
<tr>
<td>**MATERIAL</td>
<td>FINISH**</td>
</tr>
<tr>
<td><strong>SUSTAINABILITY</strong></td>
<td><strong>NOTES + RATIONALE</strong></td>
</tr>
<tr>
<td>life cycle</td>
<td>suitable for indoor + outdoor use; each piece is intended to look unique and be placed in a long-standing environment. As such, fissures, texture, and color variations will evolve. Part of the beauty of these pieces is that they will age and change over time. Hairline cracks and small chips add to the patina.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STYLE NAME</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vino Side Table</strong></td>
<td></td>
</tr>
<tr>
<td><strong>LOCATION</strong></td>
<td><strong>MANUFACTURER</strong></td>
</tr>
<tr>
<td>cafe lounge + courtyard area</td>
<td>janus et cie</td>
</tr>
<tr>
<td><strong>WEBSITE</strong></td>
<td><strong>DESCRIPTION</strong></td>
</tr>
<tr>
<td>**MATERIAL</td>
<td>FINISH**</td>
</tr>
<tr>
<td><strong>SUSTAINABILITY</strong></td>
<td><strong>NOTES + RATIONALE</strong></td>
</tr>
<tr>
<td>long life cycle</td>
<td>various sizes + finishes; offers lightness + woven aesthetic to coordinate with concept; can order cushion top separately to double as a stool with additional flexible seating</td>
</tr>
<tr>
<td>STYLE NAME</td>
<td>#</td>
</tr>
<tr>
<td>------------</td>
<td>---</td>
</tr>
<tr>
<td>Cone Side Table</td>
<td></td>
</tr>
<tr>
<td>Inlaid Side Table/Stool</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>FINISH</th>
</tr>
</thead>
<tbody>
<tr>
<td>polyethylene</td>
<td>matte eggshell (light) + matte anthracite (dark)</td>
</tr>
<tr>
<td>limestone + peridotite</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>cafe lounge + courtyard area</td>
</tr>
<tr>
<td>cafe lounge + courtyard</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SUSTAINABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>high density polyethylene is 100% recyclable + inherently scratch resistant</td>
</tr>
<tr>
<td>durable materials for all climates for longer life cycle</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NOTES + RATIONALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>minimal maintenance and can be sterilized</td>
</tr>
<tr>
<td>indoor/outdoor + flexible table or stool; weight will help stand up to weather</td>
</tr>
<tr>
<td>STYLE NAME</td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td><strong>Fibonacci Anda Lounge Chair</strong></td>
</tr>
</tbody>
</table>

**MANUFACTURER**
janus et cie

**WEBSITE**
https://www.janusetcie.com/products/fibonacci-anda-lounge-chair-736-82-112-02-00/

**MATERIAL | FINISH**
powder coated steel, JANUSfiber (polyethylene) | reed (tan) + smoke (dark)

**DESCRIPTION**
curved back with exposed steel frame + supporting outback + feet with woven sculpted seat

**LOCATION**
courtyard area

**SUSTAINABILITY**
JANUSfiber (high density polyethylene); fibers are colorfast, UV- and stain-resistant, and 100% recyclable. These fibers are a very good choice for humid environments, and installations in a range of temperatures for longest life cycle. Custom size, finishes, + COM fabric for unlimited customizable options to fit space

---

<table>
<thead>
<tr>
<th>STYLE NAME</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Single Sink Smart Mirror</strong></td>
<td></td>
</tr>
</tbody>
</table>

**MANUFACTURER**
qaio

**WEBSITE**
https://www.myqaio.com/qaiomirror/

**MATERIAL | FINISH**
glass

**DESCRIPTION**
connected smart features + automated dimmable + tunable LED lighting

**LOCATION**
private apartment bathroom

**NOTES + RATIONALE**
also has automated nightlight, anti-fog feature, smart glass with calendar, weather, reminder functions - full integration with alexa assistant + most smart personal hygiene items)
<table>
<thead>
<tr>
<th>STYLE NAME</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>EIR COMFORT HEIGHT TOILET</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MANUFACTURER</th>
<th>kohler</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATERIAL</td>
<td>porcelain, metal</td>
</tr>
<tr>
<td>FINISH</td>
<td></td>
</tr>
<tr>
<td>DESCRIPTION</td>
<td>comfort height floor mounted smart toilet</td>
</tr>
<tr>
<td>LOCATION</td>
<td>restrooms</td>
</tr>
<tr>
<td>SUSTAINABILITY</td>
<td>automated water savings</td>
</tr>
<tr>
<td>NOTES + RATIONALE</td>
<td>self-cleaning function uses UV light and electrolyzed water systems to automatically clean the wand surfaces, automatic deodorization system, seated seat with adjustable temperature settings, motion-activated, hands-free opening/closing of cover, quiet-close elongated comfort height seat, LED lighting illuminates the bowl to serve as a nightlight</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STYLE NAME</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOUBLE SPRINKLER</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MANUFACTURER</th>
<th>oto</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEBSITE</td>
<td><a href="https://otolawn.com/">https://otolawn.com/</a></td>
</tr>
<tr>
<td>MATERIAL</td>
<td>plastic, metal</td>
</tr>
<tr>
<td>FINISH</td>
<td>smart sprinkler</td>
</tr>
<tr>
<td>DESCRIPTION</td>
<td></td>
</tr>
<tr>
<td>LOCATION</td>
<td>private patios</td>
</tr>
<tr>
<td>SUSTAINABILITY</td>
<td>solar powered, precision zoning reduces water waste, smart systems react to weather in real time to adjust for humidity, wind, temperature, and precipitation</td>
</tr>
<tr>
<td>NOTES + RATIONALE</td>
<td>less invasive and more reactive than in ground systems; can help simplify gardening, allowing outdoor space to thrive</td>
</tr>
</tbody>
</table>
**First-in-its-Class Convection Microwave Drawer™ Oven**

Works with Alexa¹, and the Sharp Kitchen App on the App Store® and Google Play

Enjoy Hands-Free Cooking with Over 65 Alexa Voice Commands with the Amazon Alexa App or Your Echo Device²

Dual Convection Fans for Turntable-Free Baking, Roasting, Grilling, and Air Frying

“Easy Wave Open” for Quick, Touchless Opening of the Convection Microwave Drawer™ Oven

Built-In Airflow Control for Flush Mounting

120V Standard U.S. Household Outlet

Compatible with Alexa¹ and Easy Wave Open technology lends a helping hand, even if your hands are full.

Air Fry mode makes food moist on the inside and crispy golden-brown on the outside.

Optional, 2-drawer Under-the-Counter Pedestal accessory simply slides in for hassle-free installation.

The included dishwasher-safe racks and cooking tray can be used in all cooking modes and arranged to fit your needs.

---

**24” Smart Microwave Drawer**

**MANUFACTURER**
sharpe

**WEBSITE**

**MATERIAL | FINISH**
stainless steel + glass

**DESCRIPTION**
built-in undercounter 24” convection microwave oven drawer

**LOCATION**
apartment kitchens

**NOTES + RATIONALE**
wave open feature, connected to voice controlled smart assistance that can automate cooking drawer appliance easier for those with mobility issues

---

**STYLE NAME | #**
GoLift Portable 450

**MANUFACTURER**
amico

**WEBSITE**

**MATERIAL | FINISH**
metal, plastic

**DESCRIPTION**
6 lb portable ceiling lift for patient/weight up to 450 lbs

**LOCATION**
apartment bedrooms

**NOTES + RATIONALE**
smallest and lightest portable patient lift for easy transition from room to room; easy to clean + disinfect. All metal gears and state-of-the-art battery technology. The nickel metal hydride battery allows for triple the charge volume, permitting up to 55 lifts per charge- pending patient weight. Trolley design allows for quick installation of the trolley into and out of the track, and can be integrated into any track system
<table>
<thead>
<tr>
<th>STYLE NAME</th>
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<tbody>
<tr>
<td>AirDresser</td>
<td></td>
</tr>
</tbody>
</table>

| MANUFACTURER  | samsung |
| MATERIAL | mirror finish |
| DESCRIPTION | curved back with exposed steel frame supporting outback + feet with woven sculpted seat |
| LOCATION | bedroom closet |
| SUSTAINABILITY | replaces need for toxic dry cleaning; AI technology allows for smarter cycles to use only as much energy as necessary |
| NOTES + RATIONALE | avoid dangers of ironing; option to sanitize clothes + home items (pillows/sheets/blankets) to keep sanitary; more confidence with odor removal |

<table>
<thead>
<tr>
<th>STYLE NAME</th>
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<tbody>
<tr>
<td>BodyScan</td>
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</table>

| MANUFACTURER  | withings |
| MATERIAL | black (available in white) |
| DESCRIPTION | connected smart scale with handles. The handle also contains the electrodes needed to record the 6-lead ECG. |
| LOCATION | private bath (gym changing rooms?) |
| NOTES + RATIONALE | connected “health station”, bridging the gap between access to breakthrough metrics + integrated support from coaches and health professionals, with new technology such as Sudoscan, assessing small nerve activity in the feet with instant feedback to track changes. Handle allows more accurate body composition measurements; enables segmental body composition for which users get fat & muscle mass of each body part |
Active Aging and Disease Management. (2019). Frontiers Media SA.


Dai, Xiangjun. (2020). Research on the Planning of Attached Green space in Residential area from the perspective of elderly activities. E3S Web of Conferences, 198, 04016–. https://doi.org/10.1051/e3sconf/202019804016


ACKNOWLEDGMENTS

I am overwhelmed by the generosity + forever thankful to:
the most delightful, supportive studio teammates
the most patient, thoughtful professors
my most loving family
my most treasured friends
my most understanding vanguard work family + friends
I am most grateful to be surrounded by such encouragement + optimism...

GRAZIE MILLE!

“They have the ability to awaken within us our own flights of magic.”
- Ted Andrews
“Design is never done.” Iris Apfel