PERKINS EASTMAN

EDUCATION SESSION

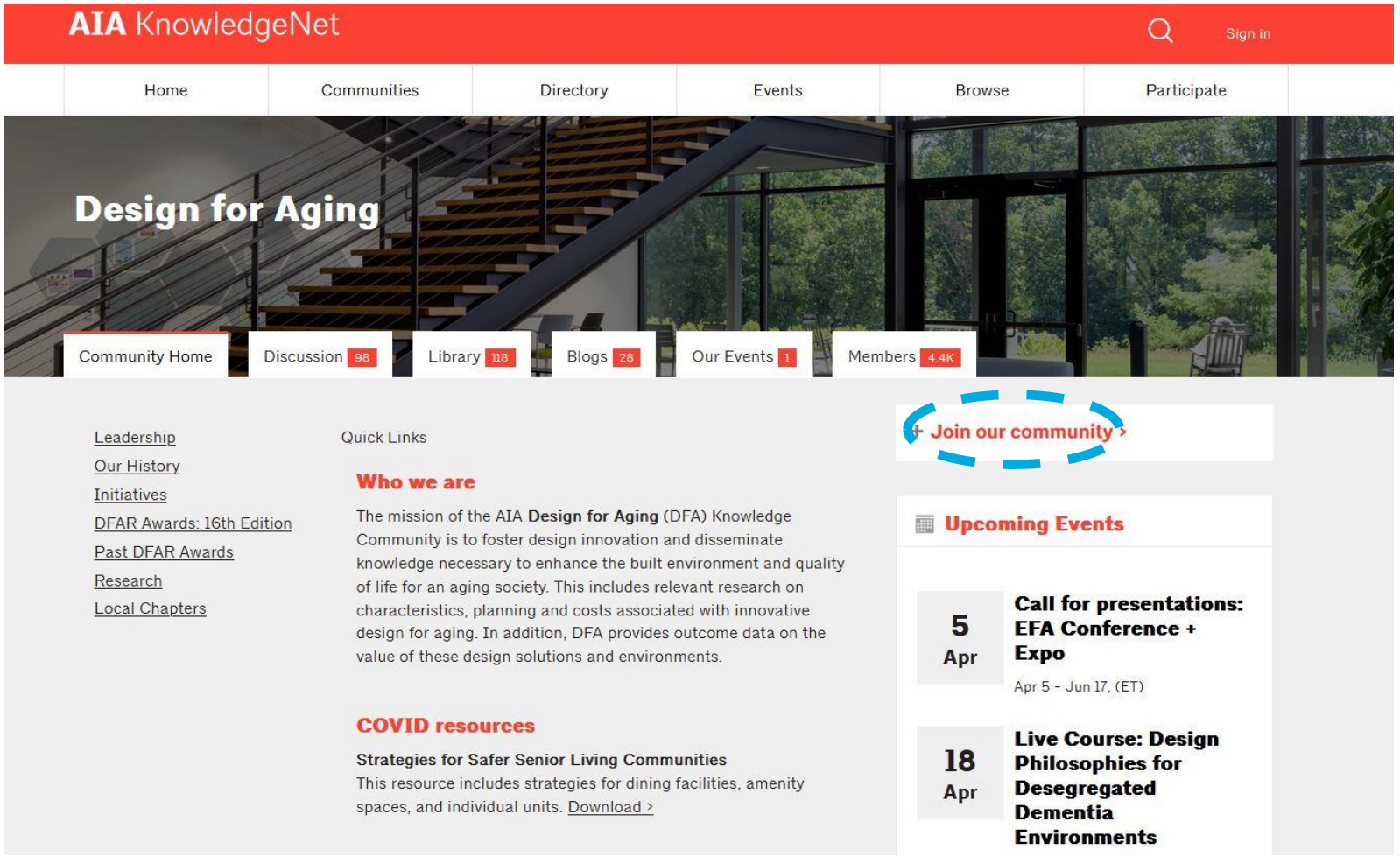
DESIGN FOR AGING

Design Philosophies for Desegregated Dementia Environments 04.18.2022

WHO WE ARE

The mission of the AIA **Design for Aging** (DFA) Knowledge Community is to foster design innovation and disseminate knowledge necessary to enhance the built environment and quality of life for an aging society.

[aia.org/dfa](aia.org/dfa)



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Questions related to specific materials, methods, and services will be addressed at the conclusion of this presentation.

DESCRIPTION AND OBJECTIVES

Description

This course will help designers to identify the challenges to creating environments for dementia that prioritize normalcy above all else and suggest design approaches to address those challenges head-on.

1. Identify existing architectural and operational assumptions that inhibit social interaction and emotional well-being of older adults living with dementia

2. Consider how dementia environments can better connect to their environmental context to weave congregate living environments into the fabric of mainstream society

3. Understand how the built environment plays an important role in defining a ‘normal’ experience that is regionally and culturally specific

4. Explore design strategies for individual expression and personalization in private and semi-private living spaces

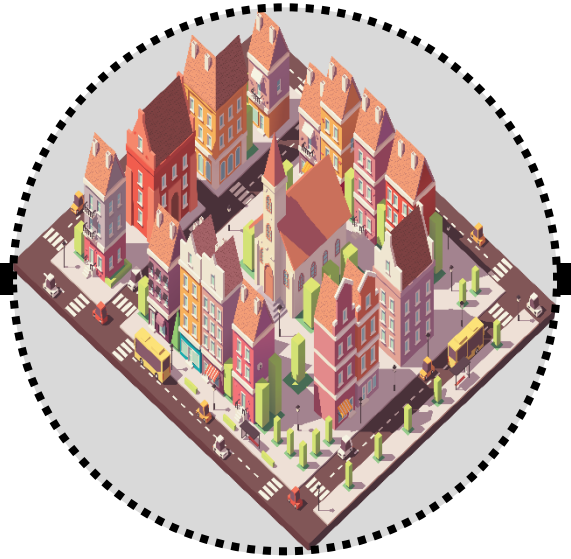
“We want every resident to be viewed as a human, and not an object in need of care.”

Les Strech
President, Thrive Senior Living
Senior Housing News 7/23/18

WHAT ARE THE FRONTIERS IN ENVIRONMENTS FOR DEMENTIA?

ROOM

BUILDING



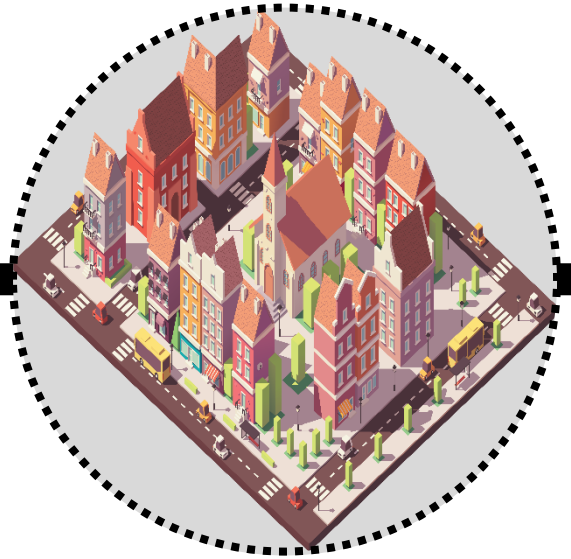
NEIGHBORHOOD

CITY

During the 30 year existence of dementia-specific environments, the majority of thinking has been about the scales of the bedroom, the living spaces that constitute the building around it, and policy level discussions about our towns and cities.

ROOM

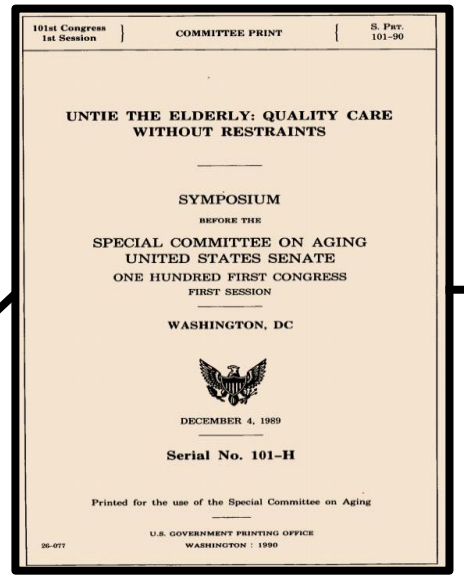
BUILDING



NEIGHBORHOOD

CITY

Less than 30 years ago, a University of Pennsylvania School of Nursing study reported that on any given day, 500,000 older Americans in hospitals and nursing homes were tied to beds or chairs[1].


101st Congress 1st Session | COMMITTEE PRINT | S. Prt. 101-90

UNTIE THE ELDERLY: QUALITY CARE WITHOUT RESTRAINTS

SYMPOSIUM
BEFORE THE
SPECIAL COMMITTEE ON AGING
UNITED STATES SENATE
ONE HUNDRED FIRST CONGRESS
FIRST SESSION

WASHINGTON, DC

DECEMBER 4, 1989

Serial No. 101-H

Printed for the use of the Special Committee on Aging

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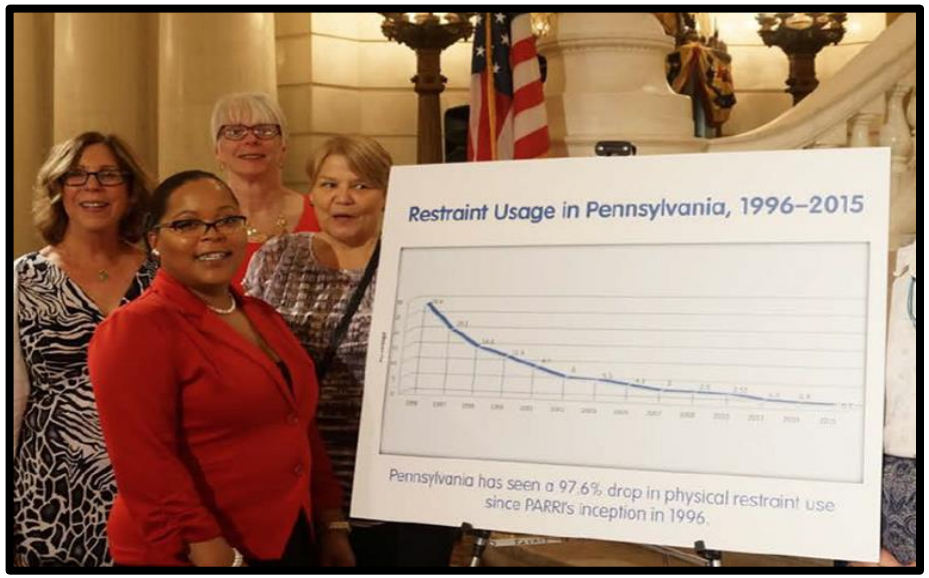
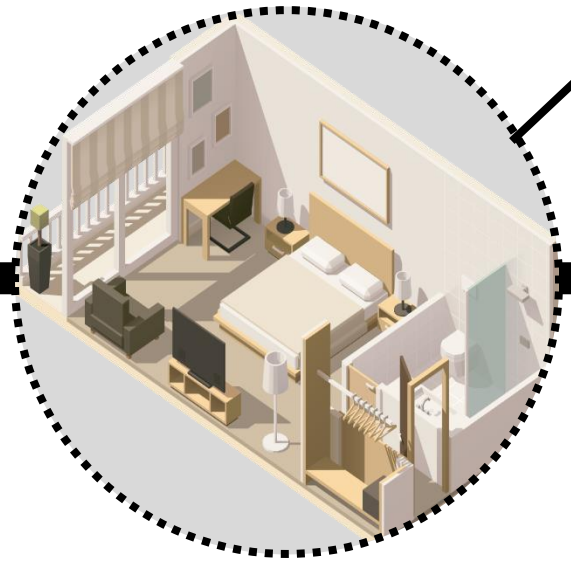
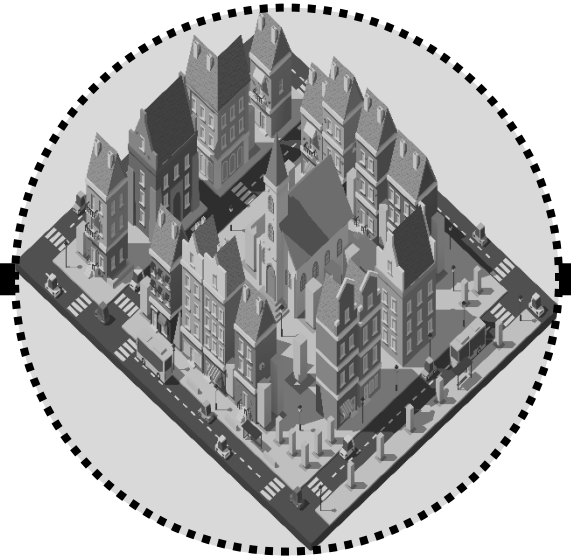
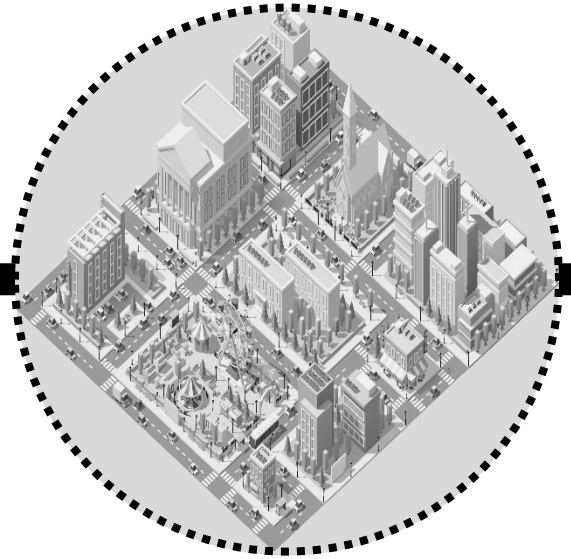


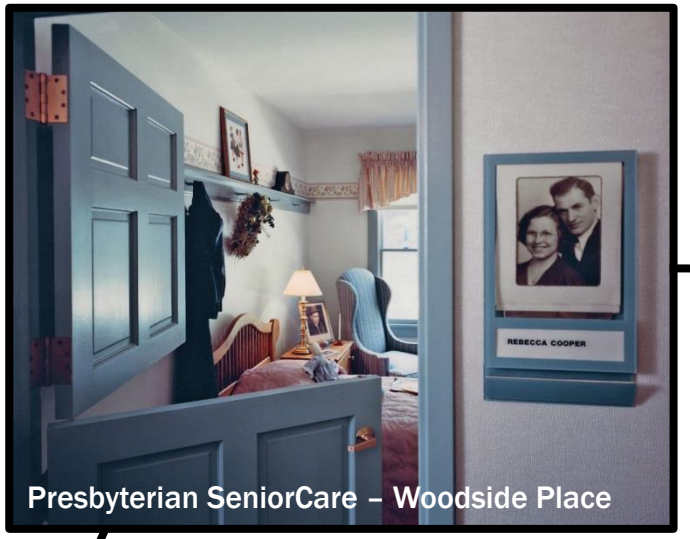






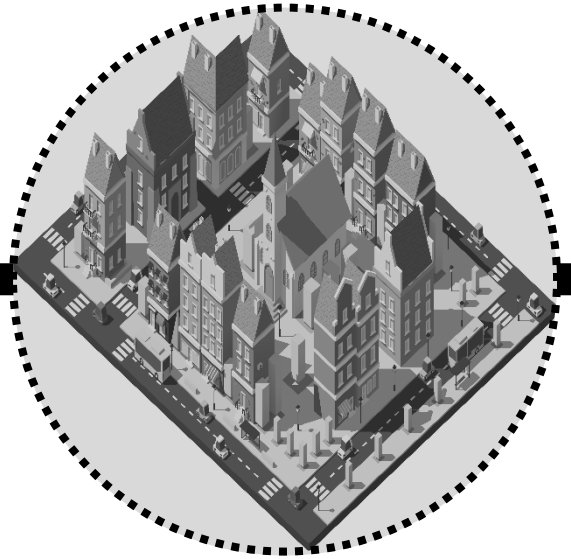
ROOM **BUILDING** **NEIGHBORHOOD** **CITY**

In the early 1990's, the first dementia-specific residential communities are developed by NFP providers. These home-like environments reflect the benefits of living spaces designed at a residential scale, instead of an institutional one.



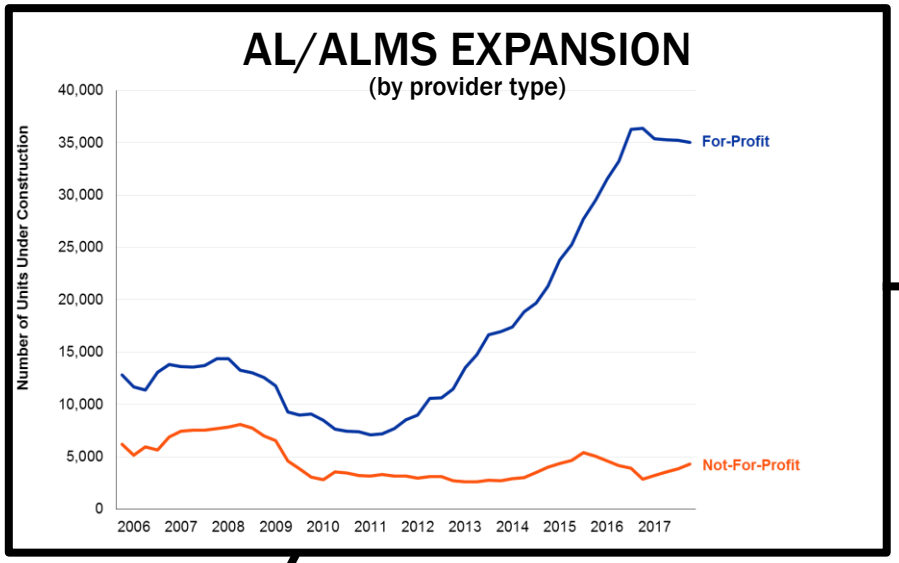
Presbyterian SeniorCare – Woodside Place

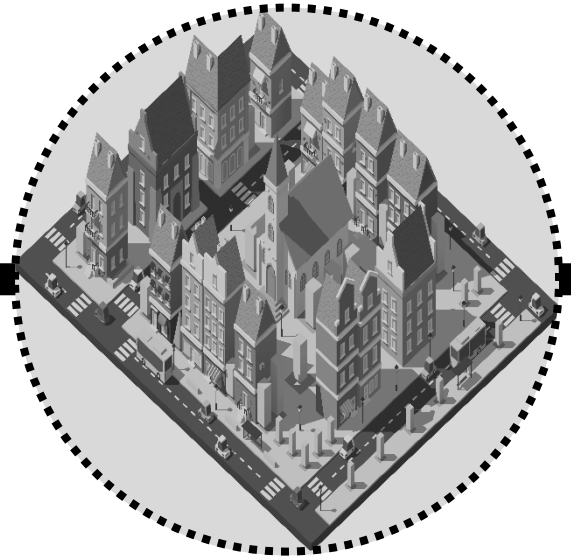
Integrace Copper Ridge

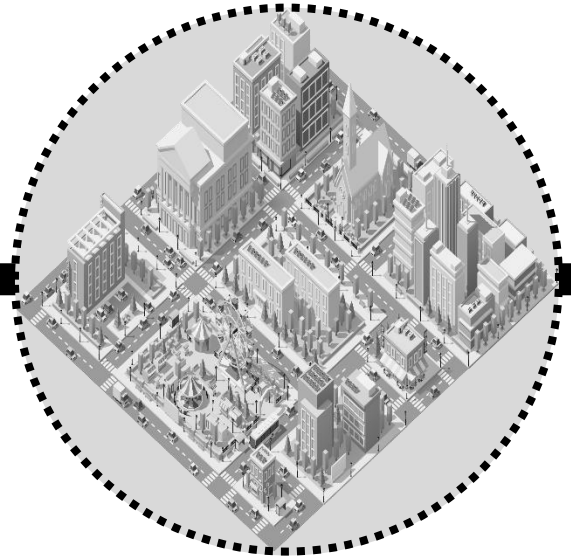


ROOM BUILDING NEIGHBORHOOD CITY

For the next 20 years, for-profit real estate developers replicated and polished these models, ultimately operating a significant majority of the dementia communities in the United States.

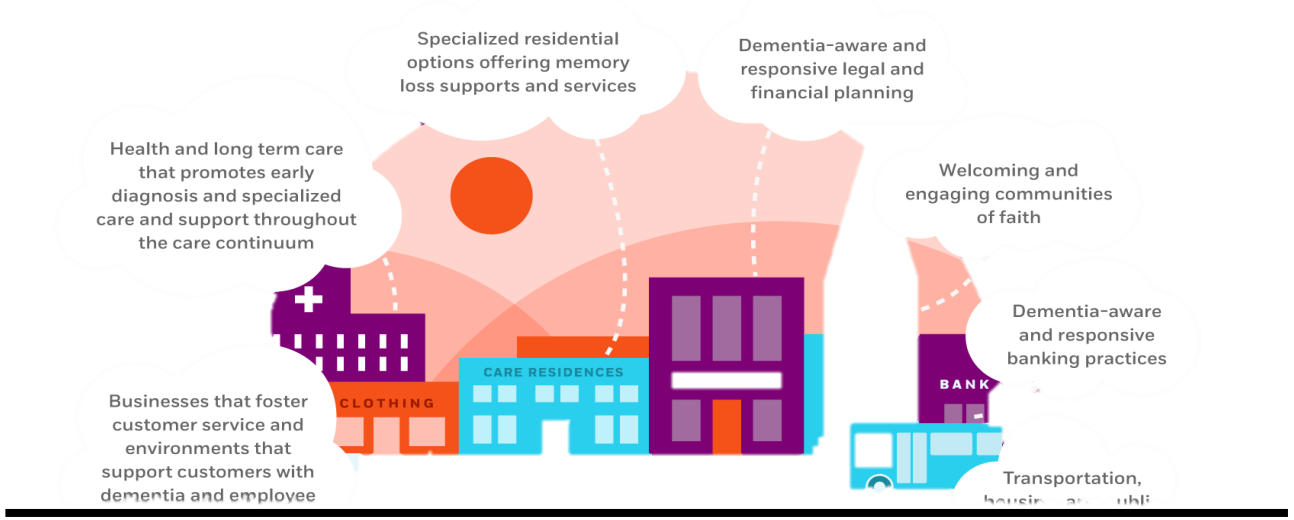


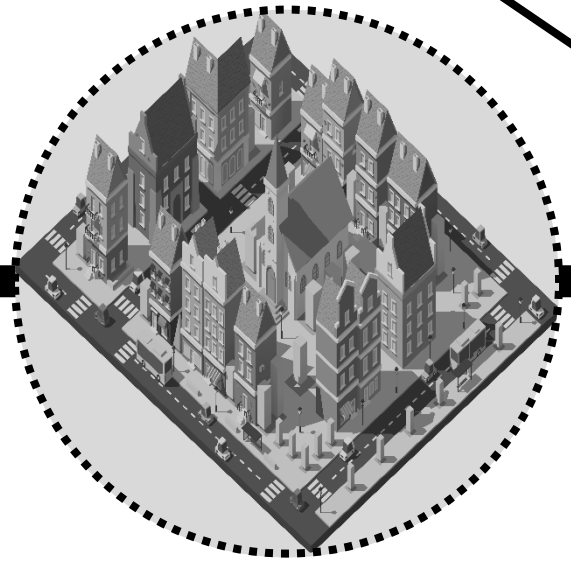


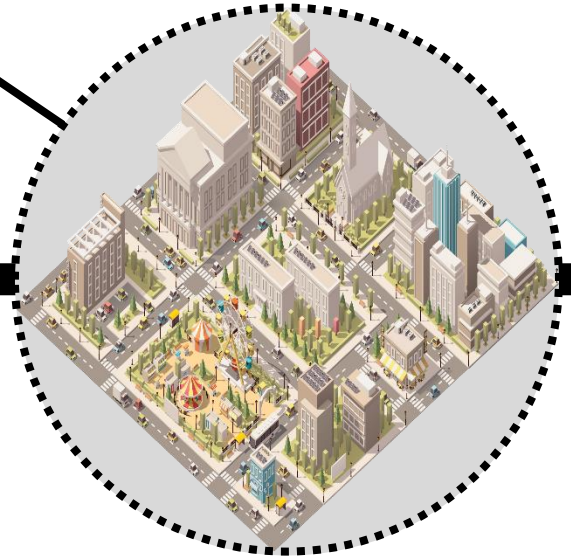


ROOM **BUILDING** **NEIGHBORHOOD** **CITY**

2015 and 2016 saw the advent of the Dementia Friendly America initiative, and the Dementia Friendly Community principles from Alzheimer's Disease International, which focus on policy level improvements to our towns and cities.

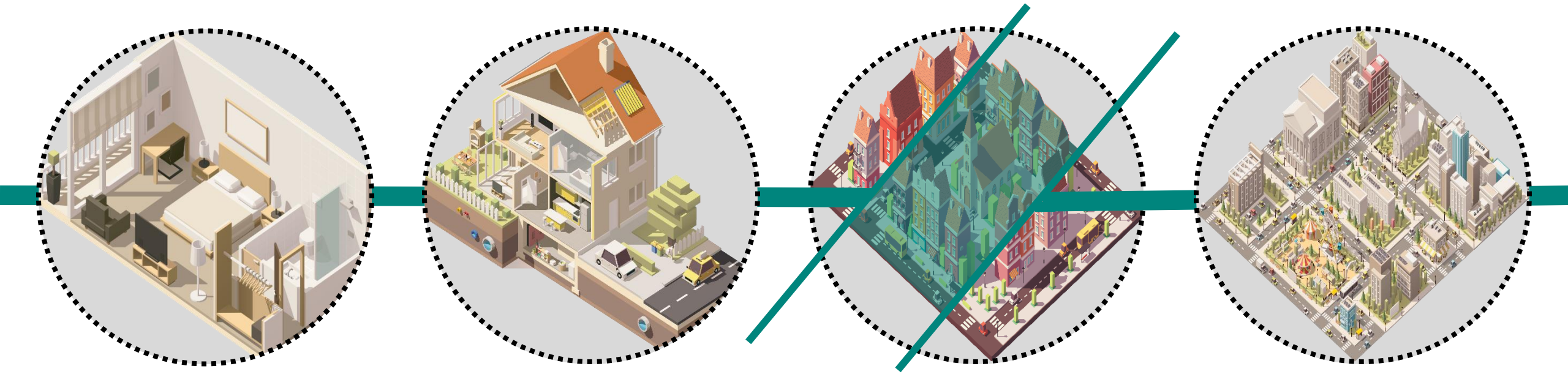






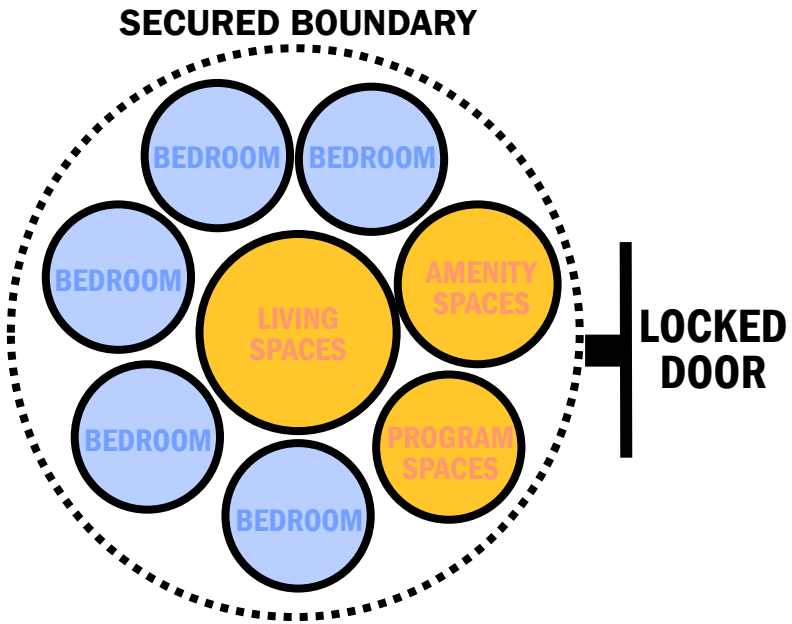
ROOM **BUILDING** **NEIGHBORHOOD** **CITY**

However, there has been little progress in connecting dementia-ready buildings to the communities around them. This leaves a significant gap in the continuity of environmental scales, resulting in a separation of older adults with dementia from their surrounding communities.

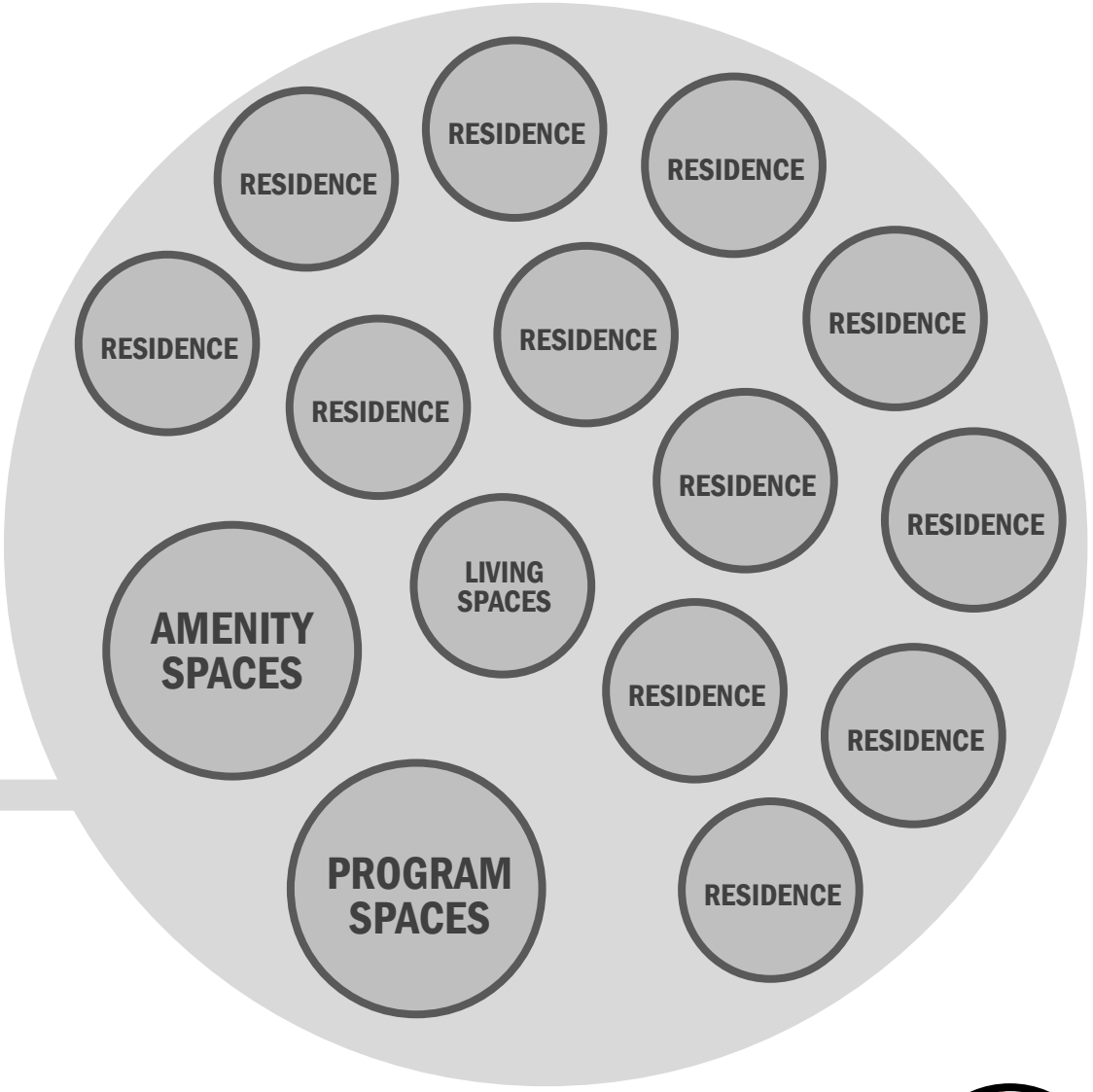


ROOM **BUILDING** **NEIGHBORHOOD** **CITY**

Looking more closely at the existing model, we can see the effect that this separation has on the relationship between dementia capable buildings on their contexts. This applies not only to the immediate context of a senior living campus; but the wider community it is located in.

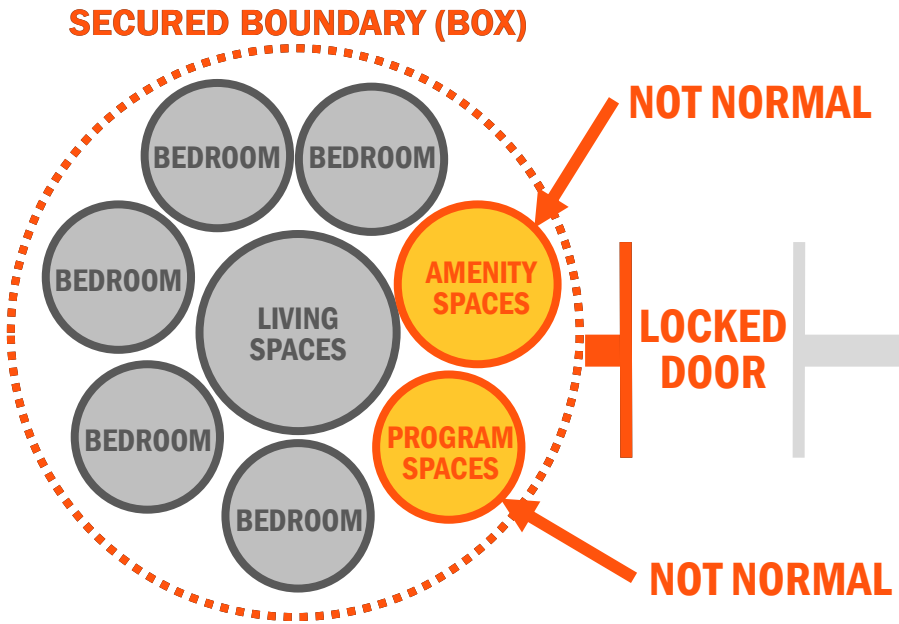


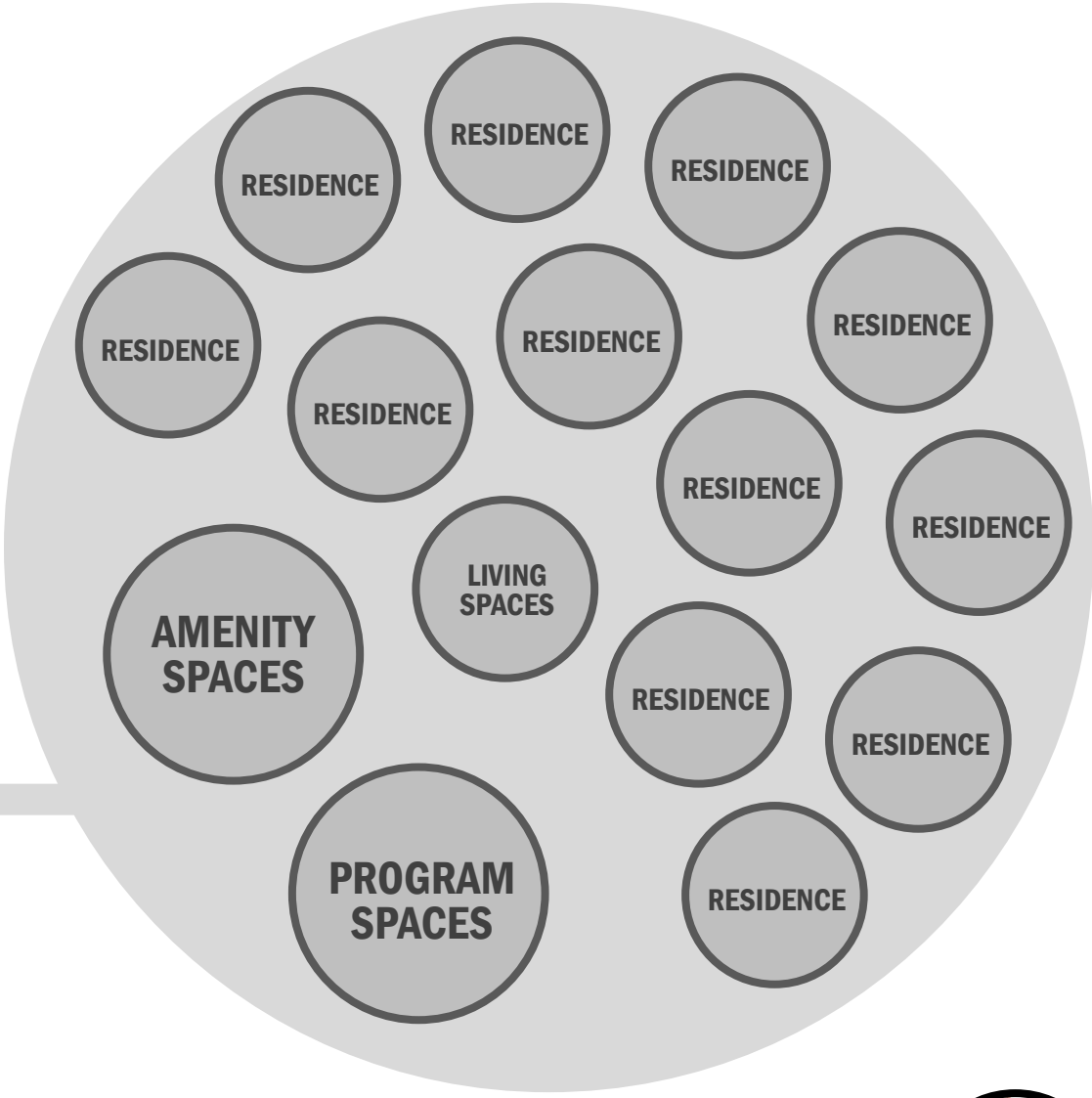
DEMENTIA CAPABLE BUILDING



SENIOR LIVING CAMPUS or SURROUNDING COMMUNITY

This creates two issues: **1)** It separates dementia residents from the larger community, and **2)** It takes activities that do not feel normal inside of a home and places them into a residential setting.

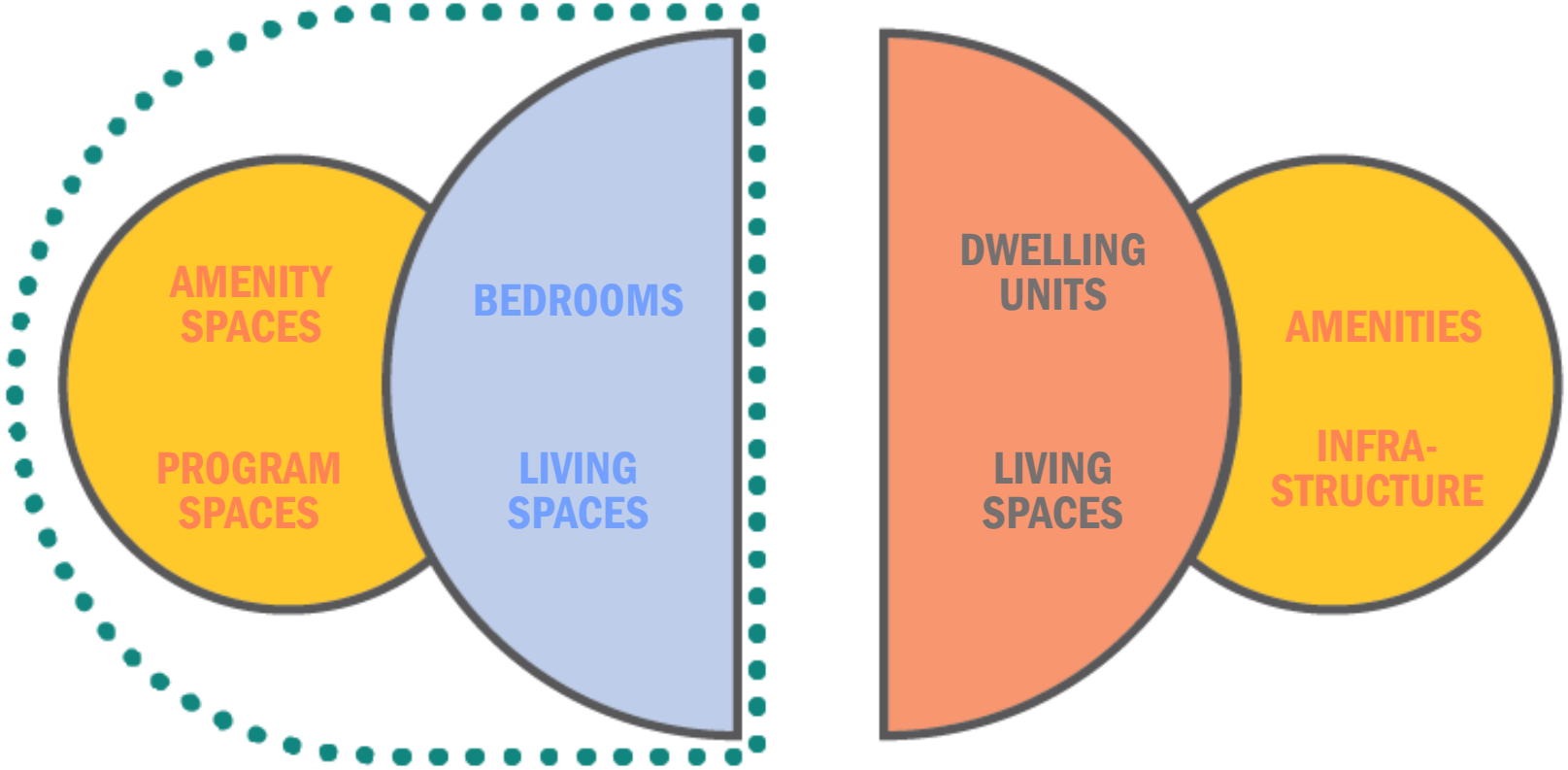




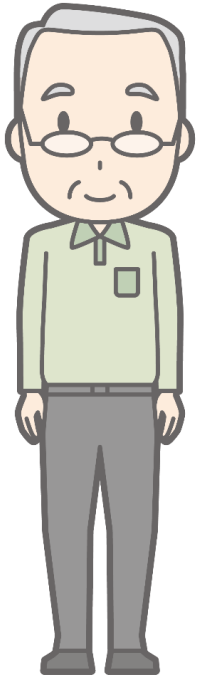
DEMENTIA CAPABLE BUILDING

SENIOR LIVING CAMPUS
or
SURROUNDING COMMUNITY

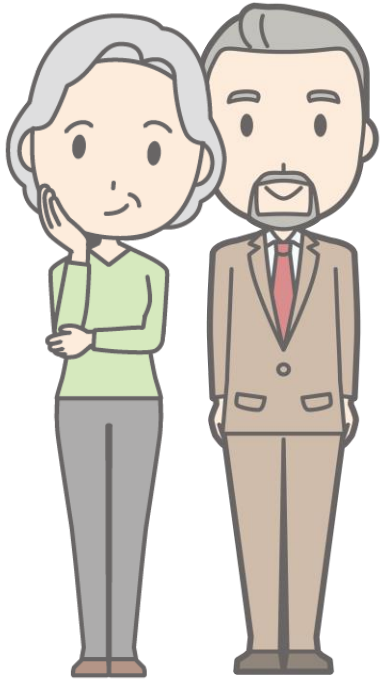
Typical creates a gap between older adults with dementia and the rest of the normal world, and stigmatizes dementia environments as ‘other’ spaces.



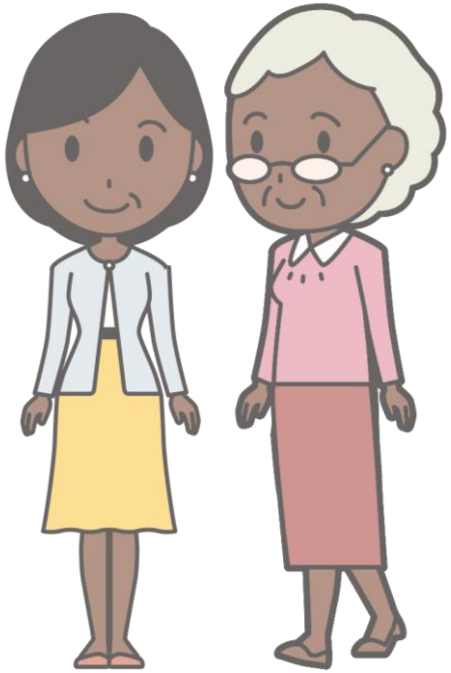
What does this ‘othering’ mean for single residents? What does it mean for couples? Families/loved ones?



Singles

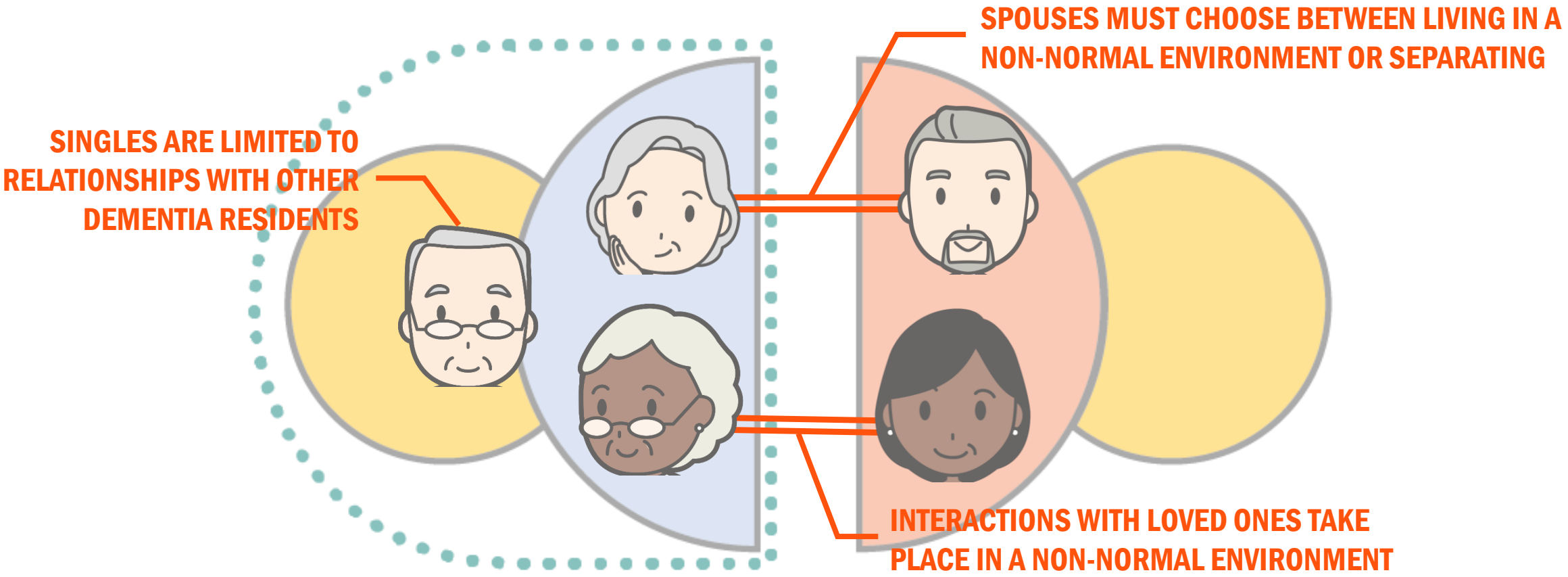


Couples

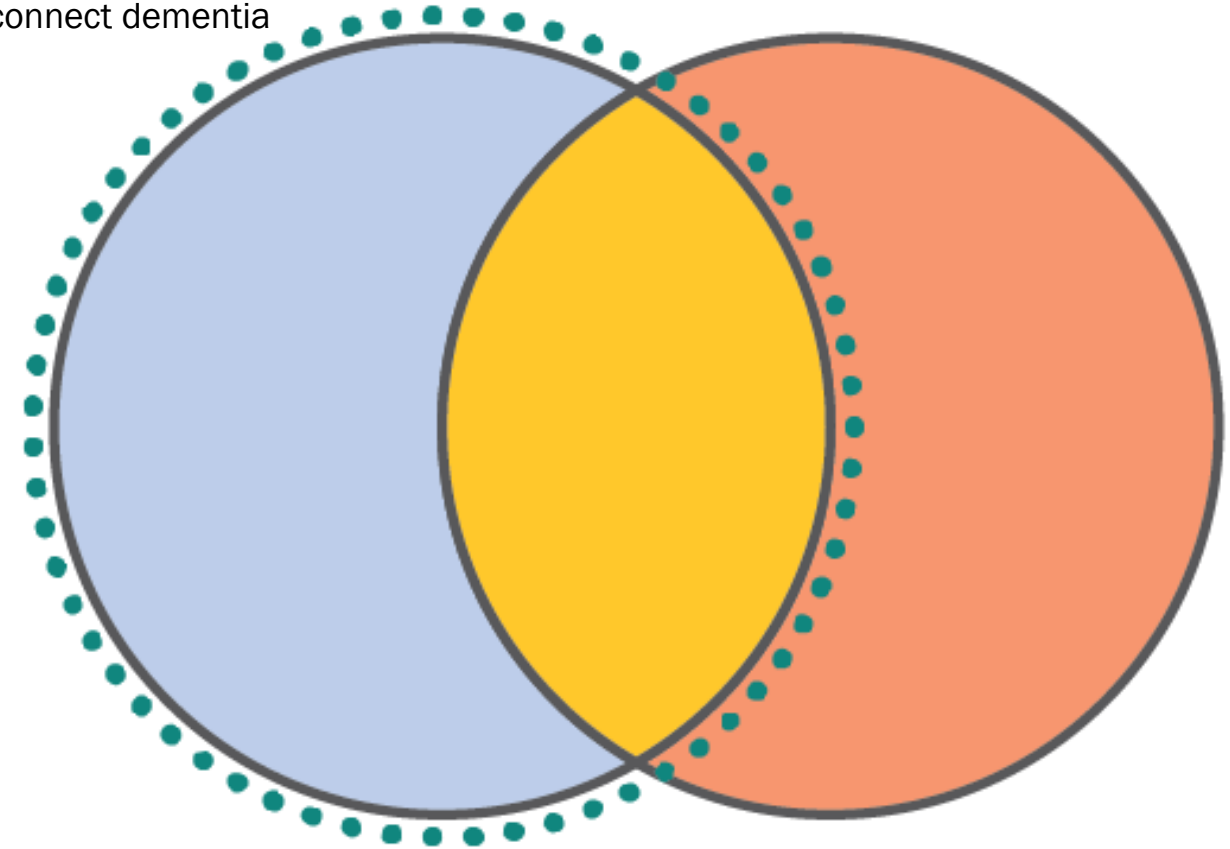


Family/Friends

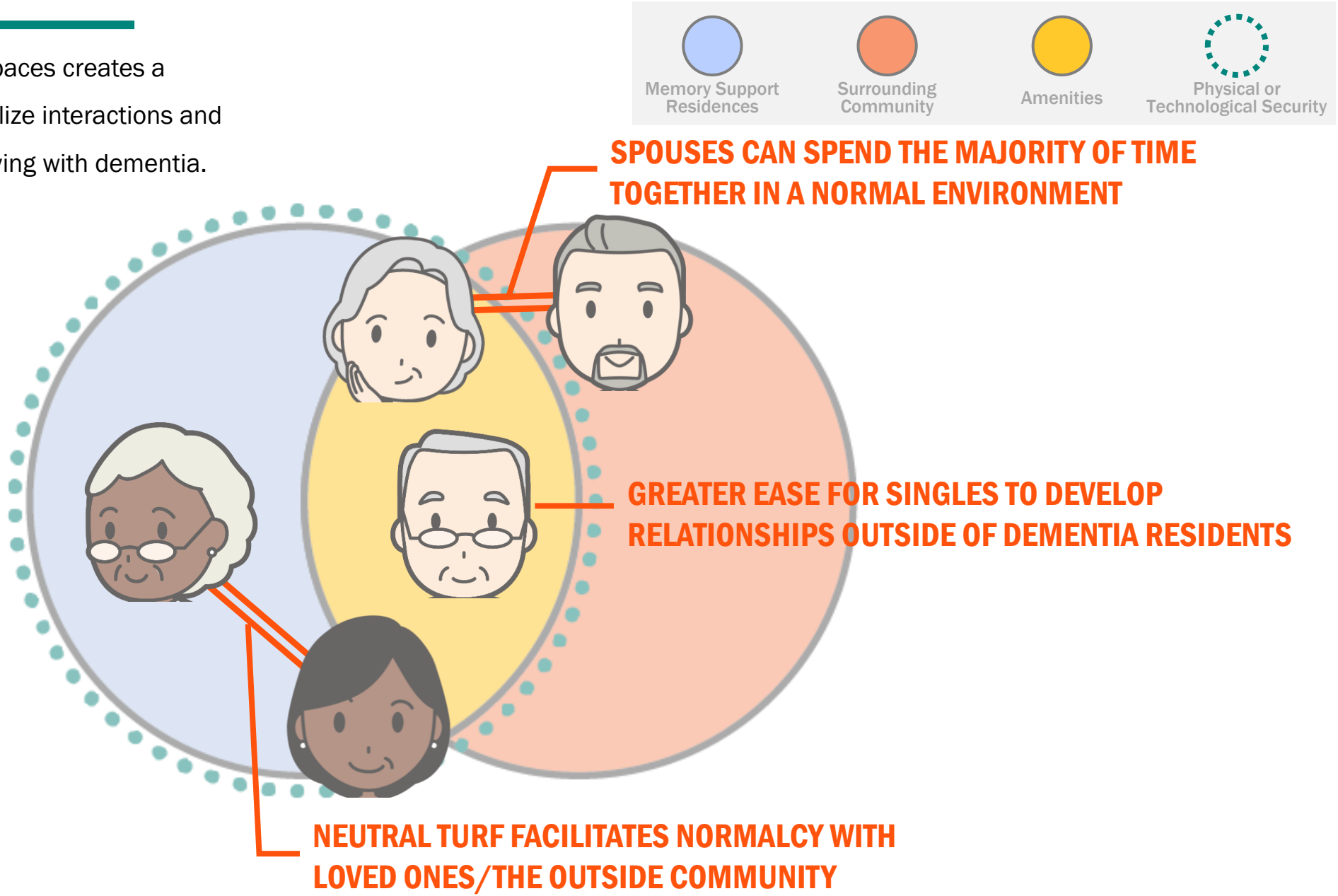
The segregated model is problematic for many different social and relational situations.



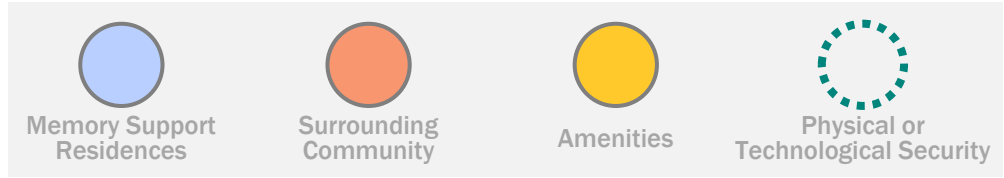
If the activities of the public realm could instead happen in a shared, other space, you could create a public realm (village/neighborhood) context where non-residential activities will be normal, and reconnect dementia residents to the community.

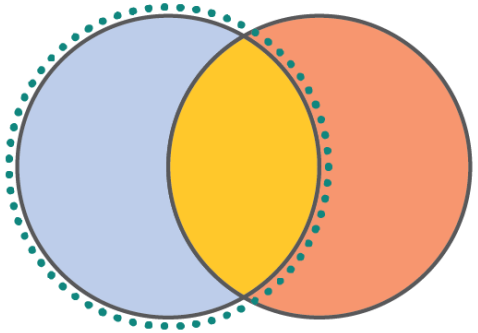


This normalizing of communal spaces creates a foundation to restore and normalize interactions and relationships with older adults living with dementia.



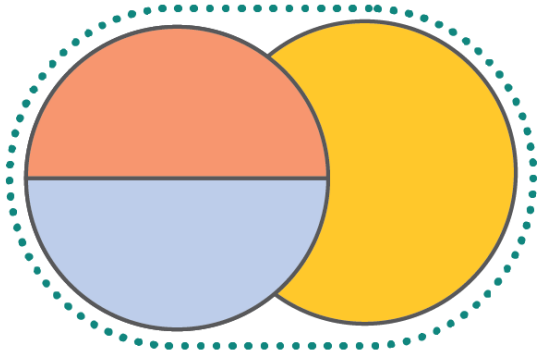
There are many variations of this kind of thinking. We will work to develop one that personifies the Baycrest position on innovative dementia environments.





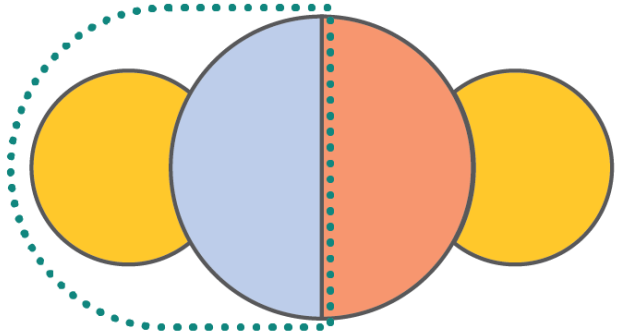
Separate Living Spaces with Shared Dementia-Friendly Zone

All amenities are located in a dementia friendly zone where MS residents interact with the public



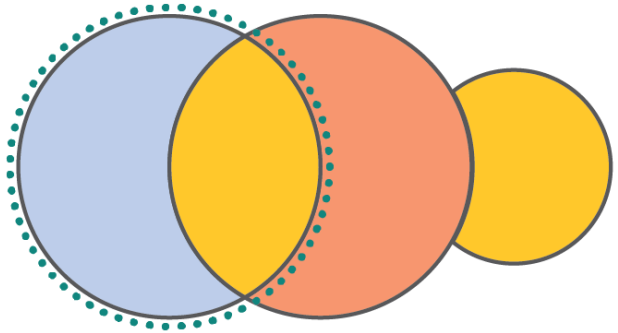
Integrated Living Spaces with Shared Dementia-Friendly Zone

No distinction between MS & 'normal residences; All amenities located in a shared dementia friendly zone



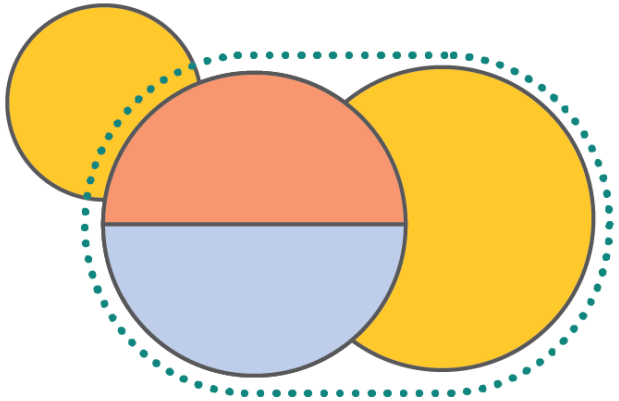
Integrated Living Spaces with Amenities Separated by Cognition

No distinction between MS & 'normal residences; Residents utilize amenities as necessary



Separate Living Spaces, Shared DF Zone, Plus Independent Amenities

Some amenities located in a dementia-friendly zone; small amount of amenities located outside the zone



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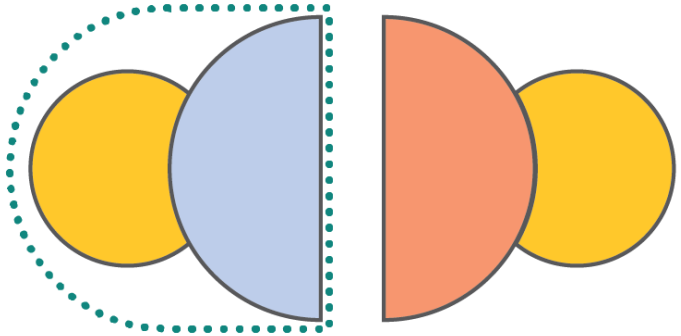
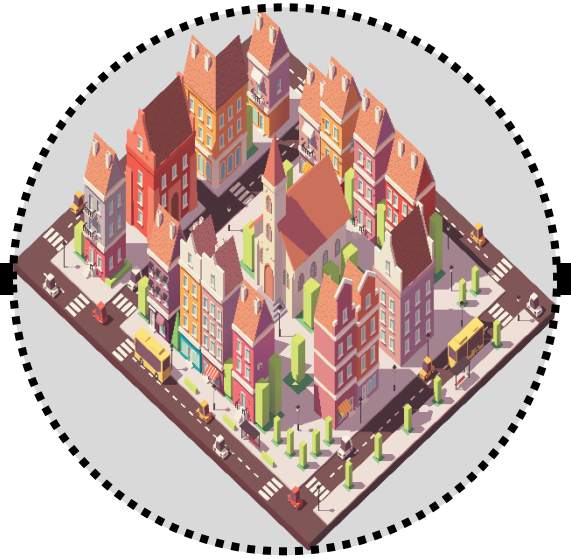


Separated Living Spaces with Amenities Separated by Cognition

MS residents live in separate residences; Residents utilize amenities as necessary

ROOM

BUILDING



NEIGHBORHOOD

CITY

What would it take to reconnect our elders living with cognitive loss to the continuum of life we all enjoy as human beings?

AVENUES FOR INNOVATION

OTHER VIEW POINTS (ENVIRONMENT)

HOGEWEY (WEESP, THE NETHERLANDS)

Hogewey = name of care center

‘weyk’ = a group of houses, village

Evolution of Hogewey

Based in Experience

1993, the Vivium Care Group started re-thinking the model for their Hogewey care home

A New Model

After a series of household-style renovations in their existing building, trial and error produced a new environmental model

Normalcy

The new model focused on maintaining normalcy; which often is lost when moving into a care environment

OTHER VIEW POINTS (ENVIRONMENT)

HOGEWEY (WEESP, THE NETHERLANDS)

What Is Normal?

Size
Households contain 6-7 residents, which attempts to mimic a single family home size as closely as possible

Lifestyle Groups
Like minded people are grouped together in households to maintain continuity in diet, daily routine, and leisure activities

Multiple Scales of Living
Resident households look and feel very private; all residents have unrestricted access to a public realm (village)

OTHER VIEW POINTS (ENVIRONMENT)

HOGEWEY (WEESP, THE NETHERLANDS)

Photo Credit: Vivium Zorggroep

Philosophy of Care

Don’t Shoot the Bear Until You See It

Don’t solve resident specific problems with restrictive design solutions; solve them with individualized care and operations

Home vs. Care Environments

In a normal, residential care setting, risks that present themselves are on par with those that exist if an older adult ages at home

Risk and Quality of Life

Accepting and taking risks is an important aspect to living with dignity; removing all risk is ultimately detrimental to quality of life

OTHER VIEW POINTS (ENVIRONMENT)

HOGEWEY (WEESP, THE NETHERLANDS)

Authentic Living

Nostalgia vs. Reminiscence

While reminiscence is a scientifically validated therapy; nostalgic environments that treat users homogenously are not

Experience of the Natural Environment

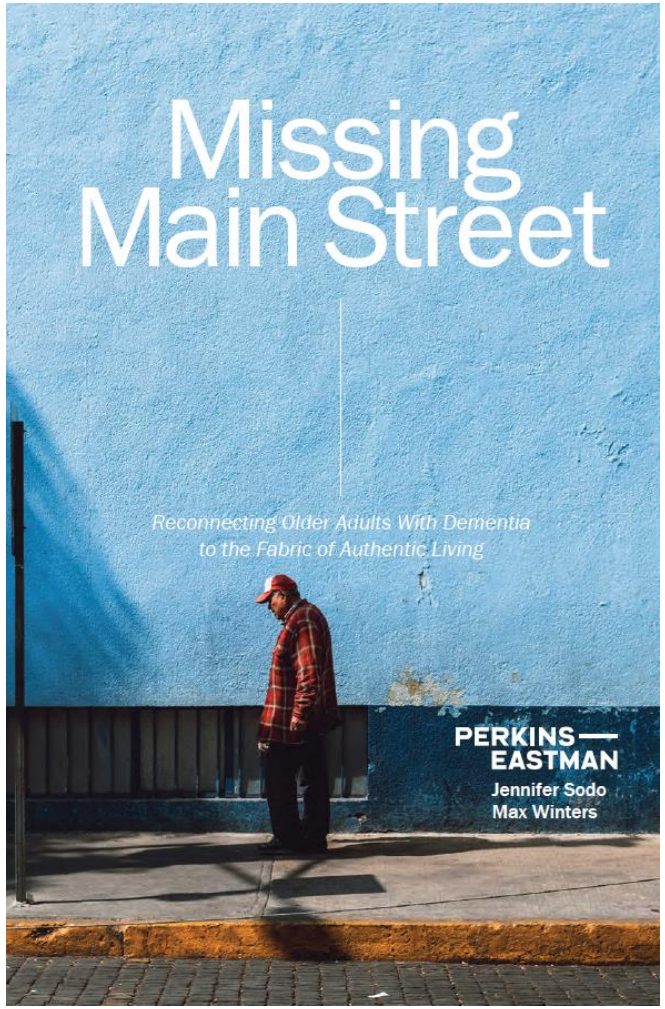
The benefits of interacting with real daylight, weather, and landscape cannot be simulated in an indoor setting

Terroir - Of The Place

Environments that tap into local/regional aspects of place provide dignity and opportunities for genuine reminiscence

GUIDING PRINCIPLES FOR INNOVATION

WHAT DOES THE DEMENTIA ENVIRONMENT OF THE FUTURE LOOK LIKE?



Cultural/ Lifestyle Groupings
Grouping like-minded seniors with similar cultures, histories, interests and daily schedules, in order to help alleviate the stress of moving from an individual home to a senior community

Individual Choice
Leaving decision-making power in the hands of the older adults living with dementia, and putting the onus back on caregivers to figure out how to say 'yes' to their choices

Decentralized Resources and Decisions
Empowering frontline staff to be active participants in caregiving, which gives them a sense of purpose and a heightened ability to care for residents as individuals with a specific set of desires

Multiple Scales
Considering the experience of older adults beyond the scale of a single building, allowing them to engage the world around them without artificial limits

Organization of the Public Realm
Employing principles from city and town planning to assist with wayfinding and encourage engaged wandering among residents

Multi-Sensory Engagement with Nature
Providing authentic, multi-sensory natural stimuli throughout communities and prioritizing true natural elements over artificial representations of nature

Blurring Front and Back of House
Incorporating back of house functions into shared front of house spaces, decentralizing and deinstitutionalizing in order to democratize space and create a residential environment

Ownership of Space
Instilling pride and creating a shared purpose by providing semi-public and semi-private spaces residents can call their own, which serve as a bridge between private and public spaces

Normalcy
Prioritizing the conditions of everyday life that defined who a resident was before she transitioned to a care environment as opposed to the efficiencies and predictabilities of an institutional model

Authenticity
Understanding the difference between a genuine experience that appeals to us intrinsically as human beings as opposed to a simulated experience that appeals to us as a 'lowest common denominator'

Risk Attitude
Allowing residents to live a fulfilled life, which includes a certain amount of risk, enacting creative interventions only when absolutely necessary

CULTURAL/LIFESTYLE GROUPINGS

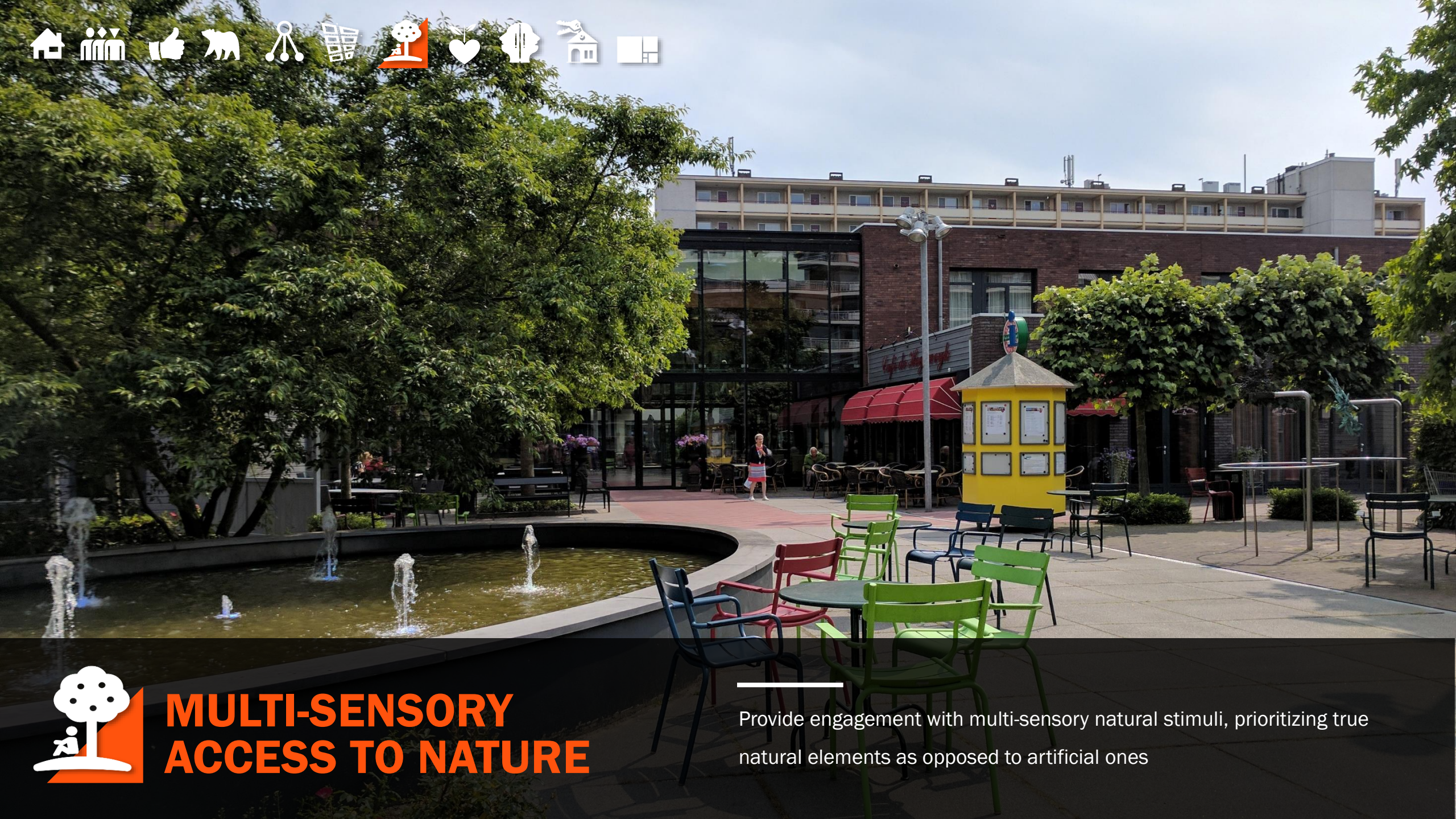
Group like-minded seniors in order to alleviate the stress of transitioning from home to a care environment.

RISK ATTITUDE

Living a fulfilling life includes a certain amount of risk, and we often limit the fulfillment of others based on something that is a corner case risk.

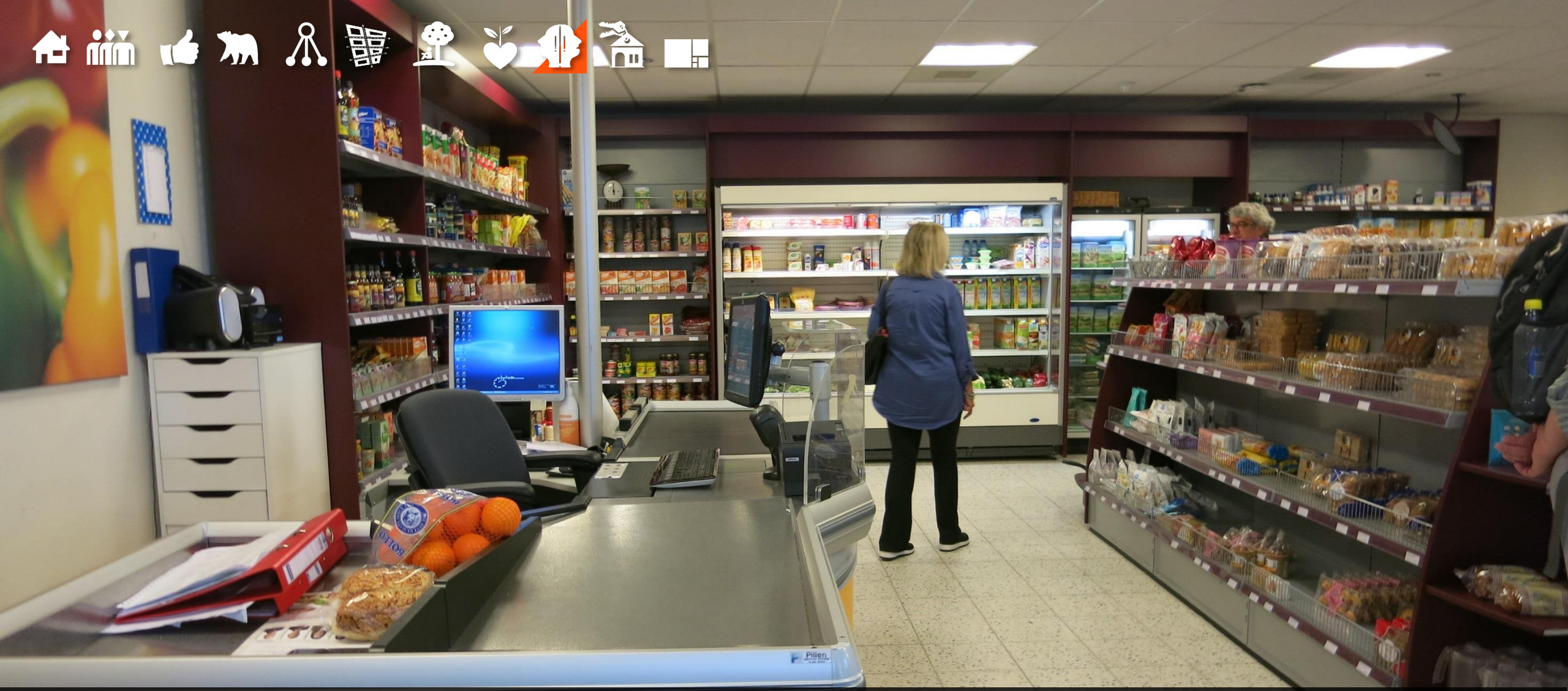
DECENTRALIZED DECISION MAKING

Empower frontline staff to be active participants in all aspects of caregiving, rather than silo-ing them into specific, repetitive tasks.



MULTI-SENSORY ACCESS TO NATURE

Provide engagement with multi-sensory natural stimuli, prioritizing true natural elements as opposed to artificial ones



BLURRING FRONT AND BACK OF HOUSE

Incorporate back of house functions into shared front of house space, which deinstitutionalizes them and creates a more residential environment

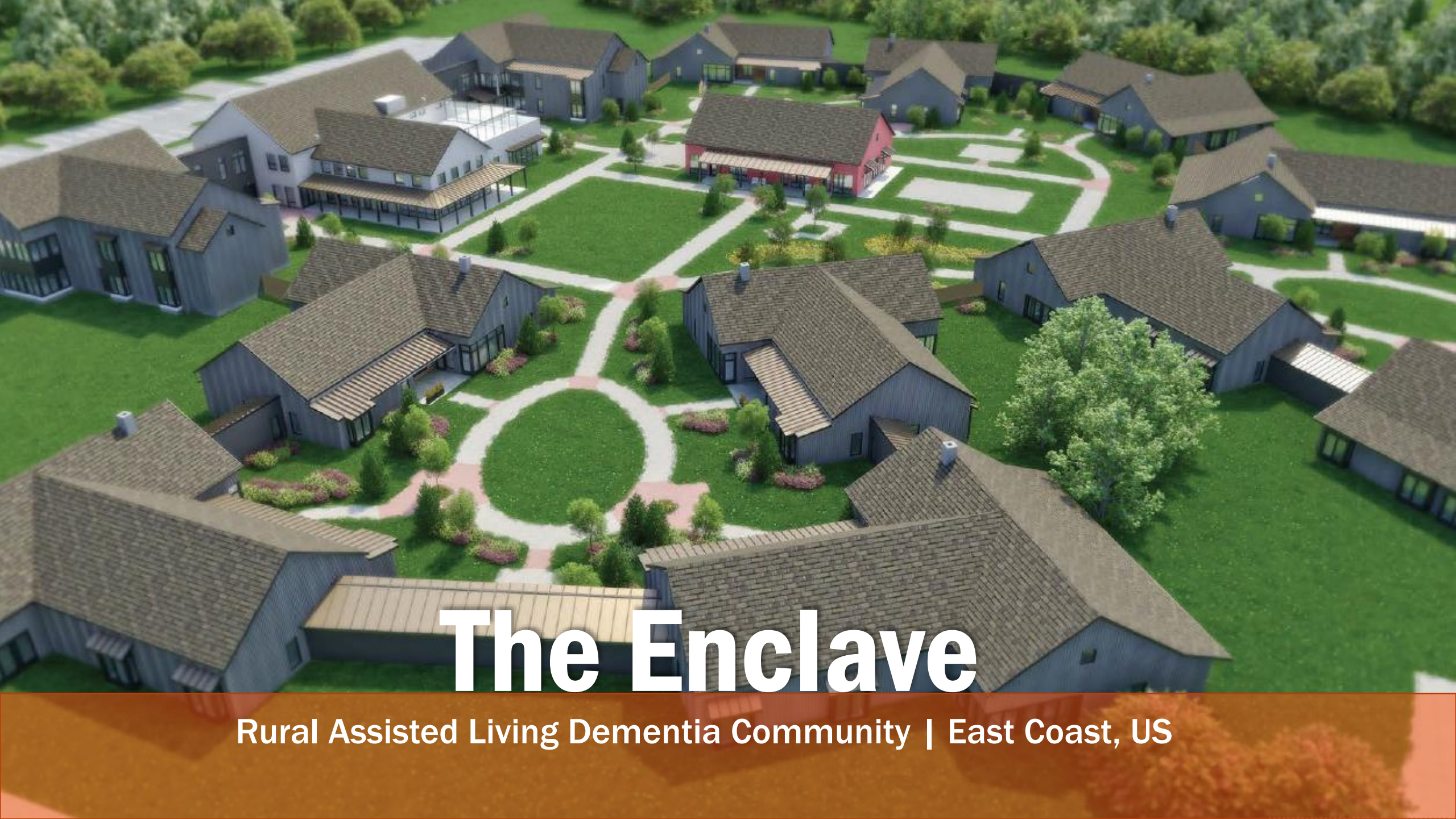
CRITERIA FOR EVALUATING DECISIONS

WHAT NEEDS TO BE CONSIDERED AND WHAT IS MOST IMPORTANT?

Normalcy	Does it reflect the conditions of every day life, or of a contrived institution?	Normal ⟷ Institutional
Risk Taking	Does it provide more/less control to the operator? More/less control to residents families?	Less Control ⟷ More Control
Empowerment	Are decisions made centrally/top-down, or are staff/residents/families given autonomy?	Total Autonomy ⟷ Centralized Decisions
Efficiency	Is it easier/cheaper or harder/more expensive to staff and operate?	Easy/Cheap ⟷ Difficult/Expensive
Individuality	Does it treat staff, residents, and families homogenously or heterogeneously?	Heterogeneous ⟷ Homogenous

CASE STUDIES IN INNOVATION

In Memory Support Environments



The Enclave

Rural Assisted Living Dementia Community | East Coast, US

SITE STRATEGY

WHAT ARE THE DESIGNATIONS OF INDIVIDUAL BUILDINGS?

Public Realm

Bistro, farm animal area, and amenity pavilion invite families and visitors onto the Enclave campus

Secure Perimeter

The secure boundary that Enclave residents do not cross unassisted

Main Entry

Secured by a push-button controlled by a 24-hour concierge

Neighborhood Landscape

Each neighborhood landscape has a different character to reflect individuality and difference within the Enclave

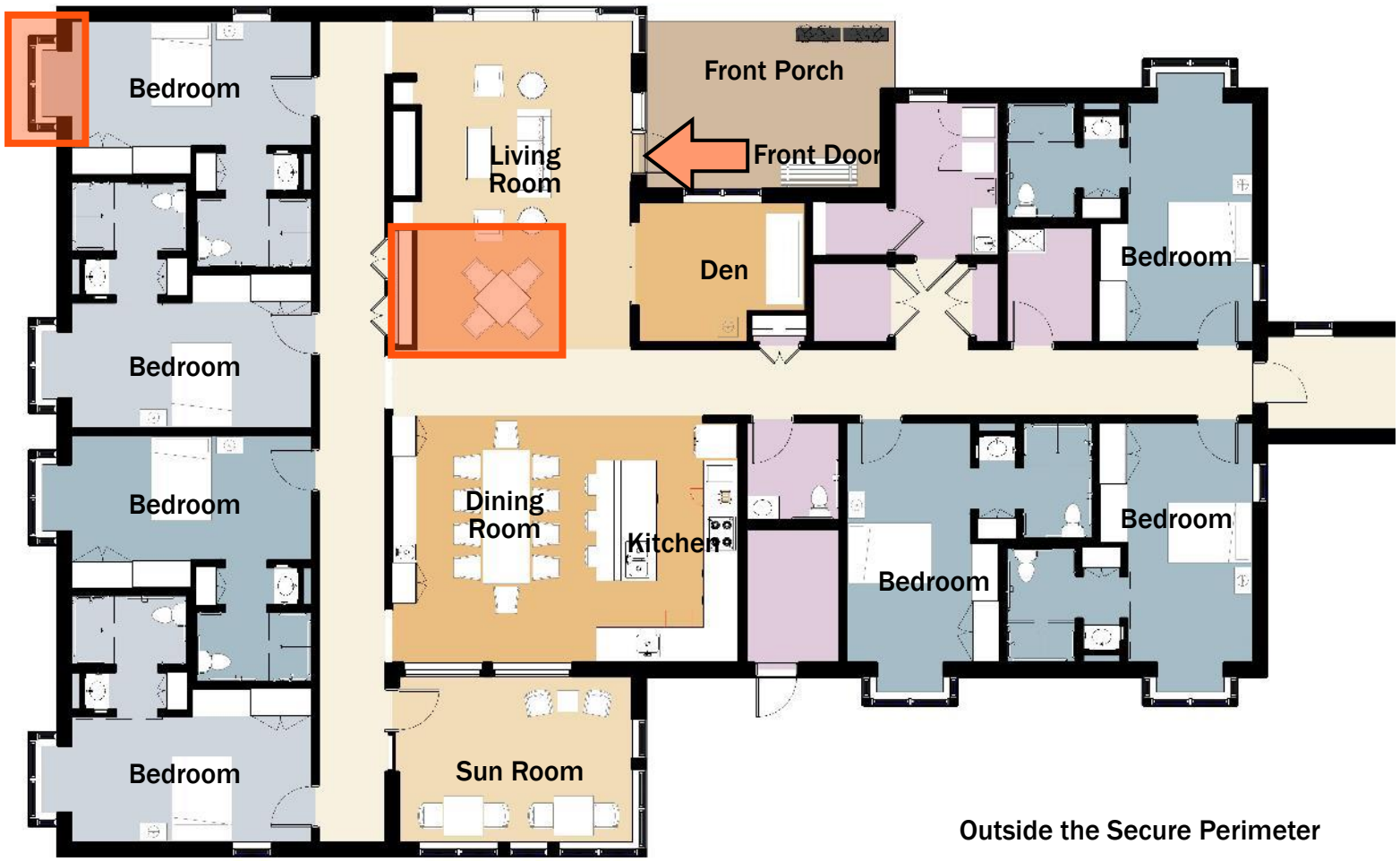
RESIDENT HOUSES

TYPICAL HOUSE FLOORPLAN

Each house consists of seven private bedrooms (including private bathing), and living, dining, and kitchen spaces that are dedicated exclusively to those seven residents

Houses are entered/exited through the front door and **front porch which faces a neighborhood green** shared by 3-4 houses

The scale and massing of each house (~5,000sf each) makes it **look and feel like a single family residence**



The base drawings for this slide is located on sheet A-121 of the formal submission

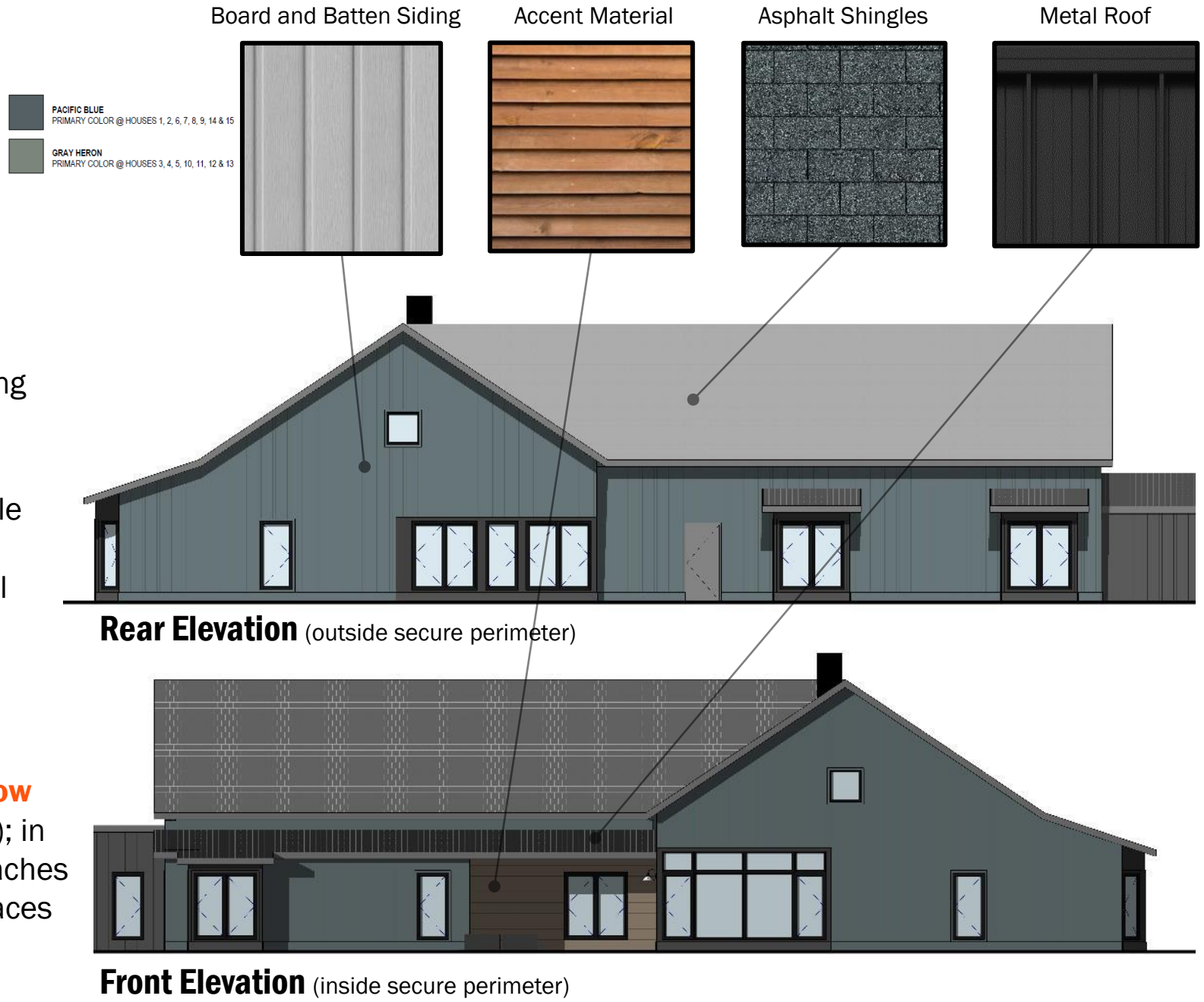
RESIDENT HOUSES

TYPICAL HOUSE ELEVATIONS

- To embody the care model based on normalcy, the **design of buildings and landscape is focused on a residential aesthetic,** that incorporates the rural character of the site and the surrounding community

- The households will employ simple gable forms and vertical siding to create a **'modern farmhouse' aesthetic** that will blend in well with the site and the landscape

- Outside the secure perimeter, the **landscape will be natural, rural, and low maintenance** (longer meadow grasses); in inside the perimeter a variety of approaches will be employed to achieve diverse spaces



Rear Elevation (outside secure perimeter)

Front Elevation (inside secure perimeter)

RESIDENT HOUSES

CONCEPT RENDERINGS OF THE HOUSES

To embody the care model based on normalcy, the **design of buildings and landscape is focused on a residential aesthetic,** that incorporates the rural character of the site and the surrounding community

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THE ENCLAVE

CONCEPT AERIAL RENDERING

The images on this slide are still frames from the video presentation submitted for this hearing

TECHNOLOGY AND SECURITY

BLENDING TECHNOLOGY AND THE BUILT ENVIRONMENT TO BALANCE SAFETY AND AUTONOMY

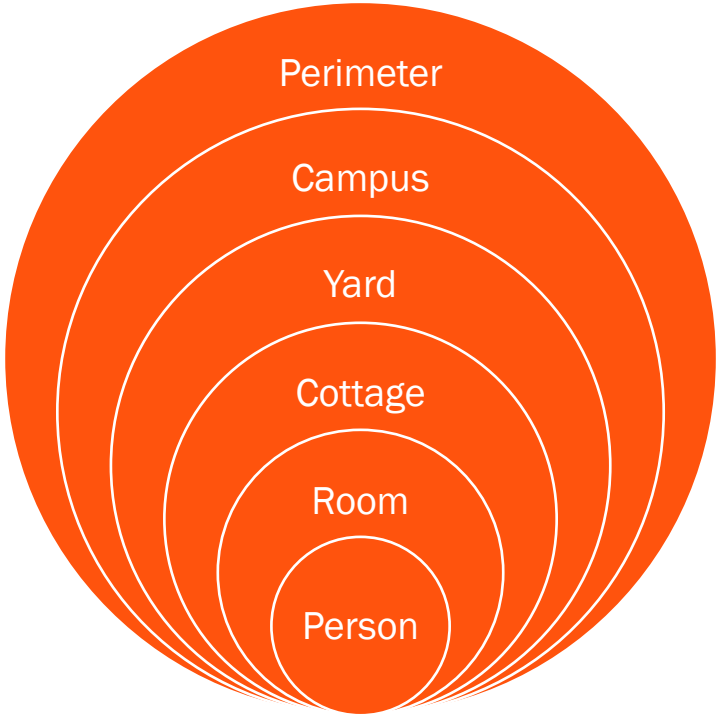
United Methodist Communities has early successes with telehealth and RPM

The not-for-profit senior living and healthcare provider is preventing more falls, decreasing mortality and morbidity, increasing frequency of consultative services, and much more.

By Bill Siwicki | October 28, 2020 | 11:47 AM

Real-time vital sign monitoring in the hands of associates has improved staff effectiveness and efficiency at United Methodist Communities.

'Defense in Depth' Concept



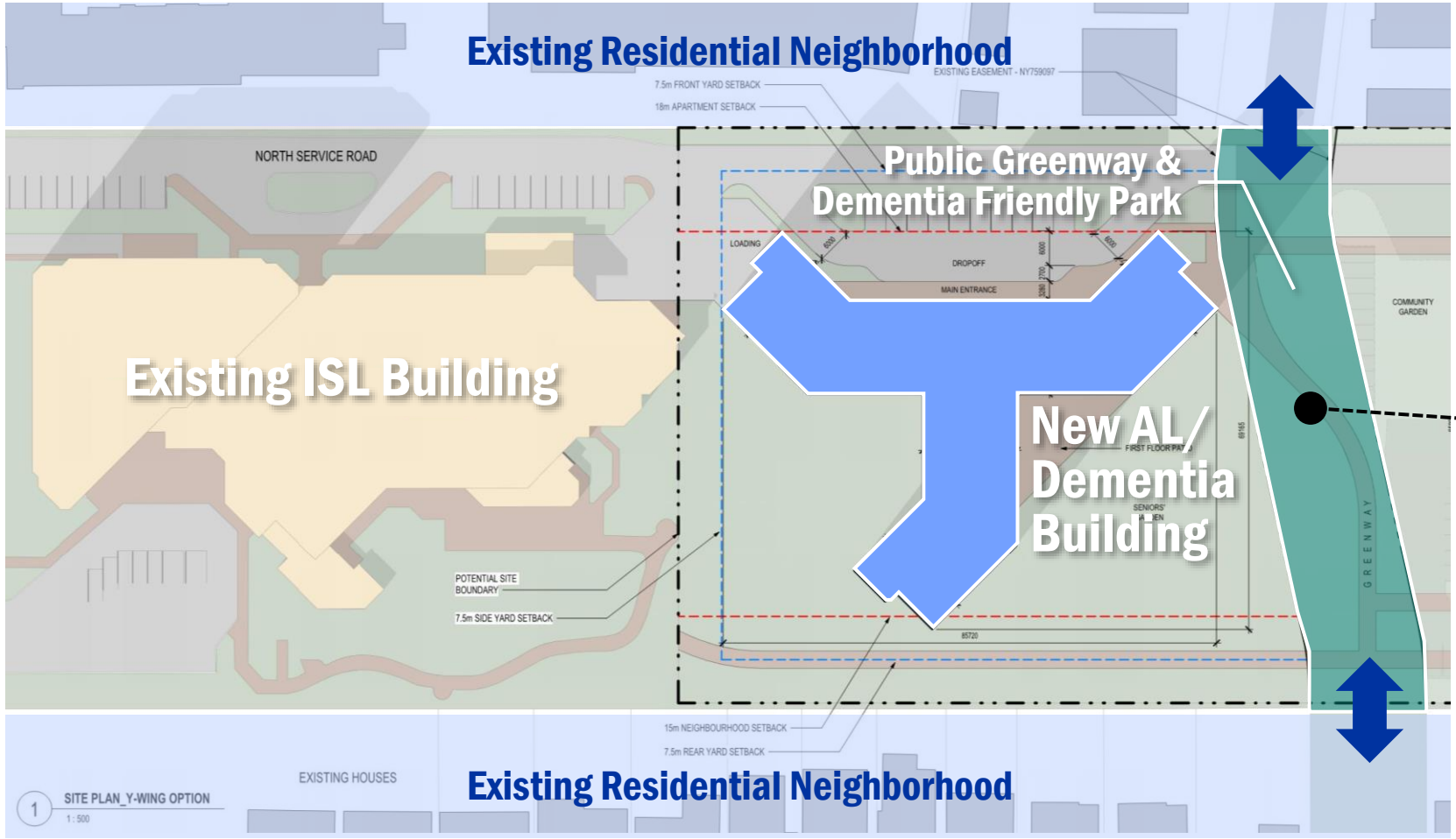
VirtuSense remote resident monitoring devices have lead to an 82% reduction in fall among current residents

Baycrest Memory Support

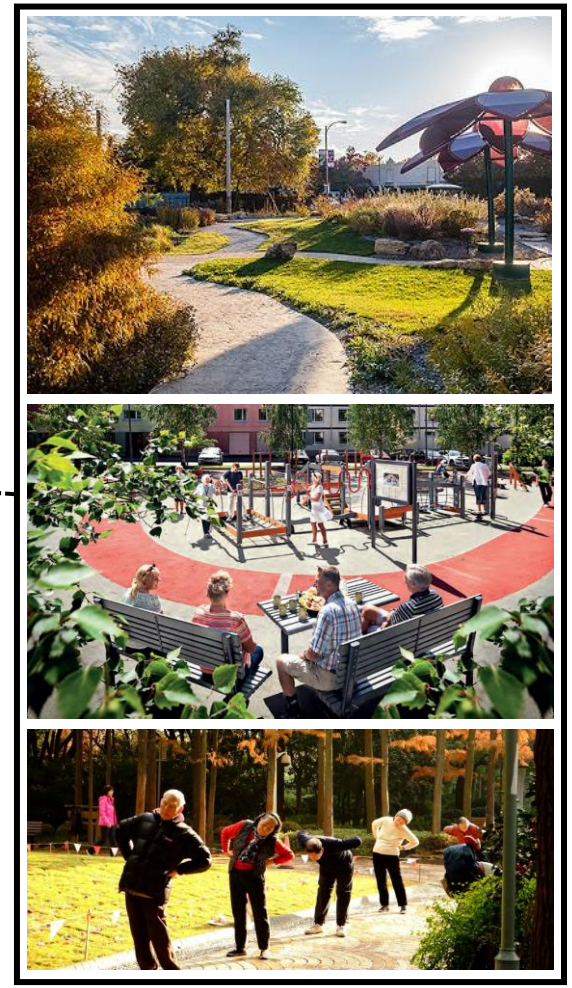
Urban Assisted Living Dementia Community | Toronto, ON, CA

BAYCREST RESDIENTIAL BUILDING

SITE CONCEPT AND IMAGERY



[greenway park concept images]



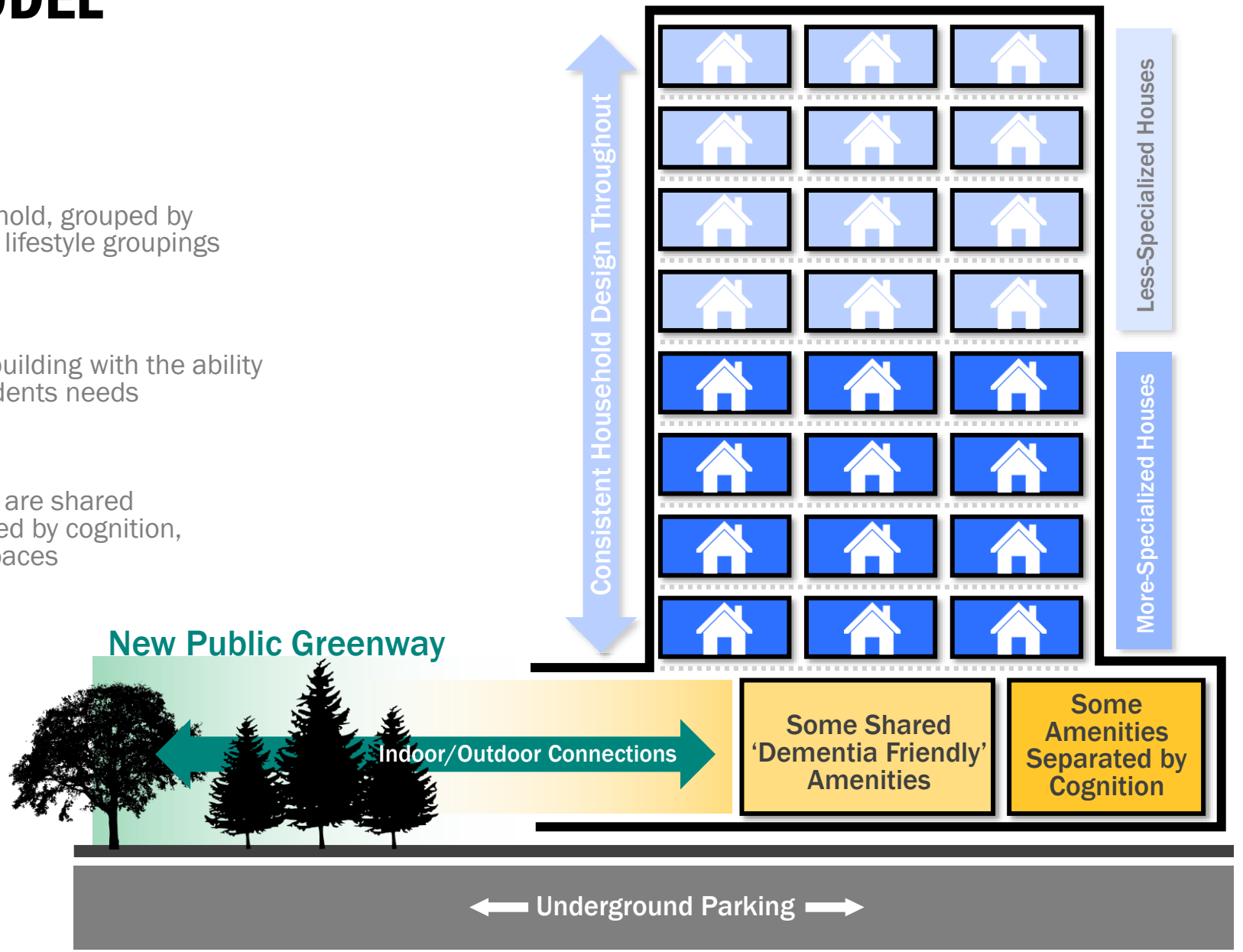
VERTICAL VILLAGE MODEL

Autonomous Households
Three per floor, eight residents per household, grouped by some combination of cognitive acuity and lifestyle groupings

Household Design
Baseline design is consistent across the building with the ability to specialize/adapt to the household residents needs

Amenities
Ground floor destination amenities, some are shared and ‘dementia friendly’ some are separated by cognition, indoor/outdoor connections to outdoor spaces

Parking/Loading
Co-located loading with underground service connection, explore possibility for underground parking



UPPER FLOOR PLAN

FLOORS 2-9

Houses as Modules

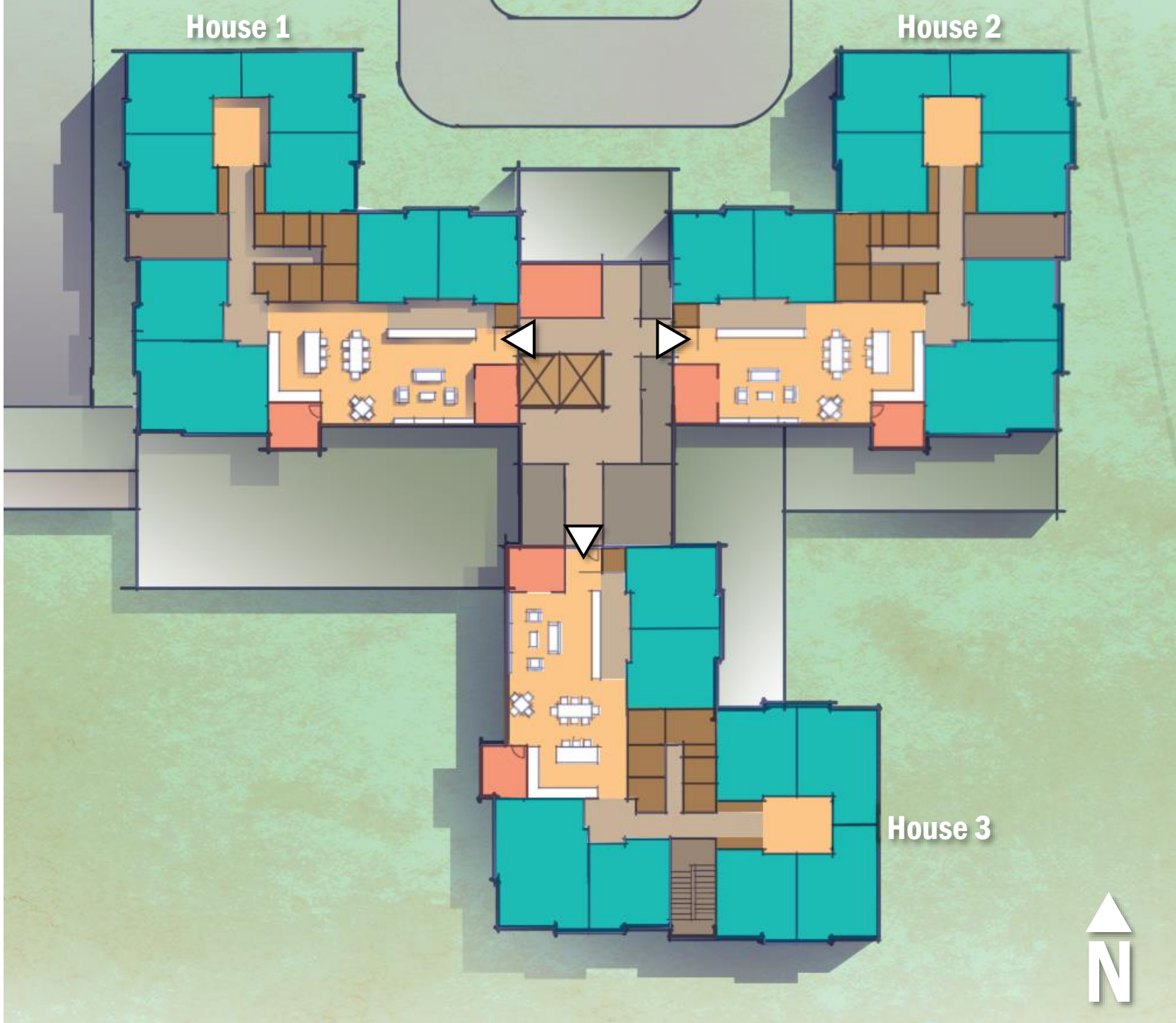
Houses mitigate the constraints of a multi-story building: entering from a single elevator core into common space; resolve end condition

Solar Orientation

Two houses per floor have southern explore
House 3 may have to adjust to lessen a direct Western exposure

Massing Along North/South

Long façade across north side of the site is set back from plane of wing ends, and minority of mass along the south side of the property



HOUSES

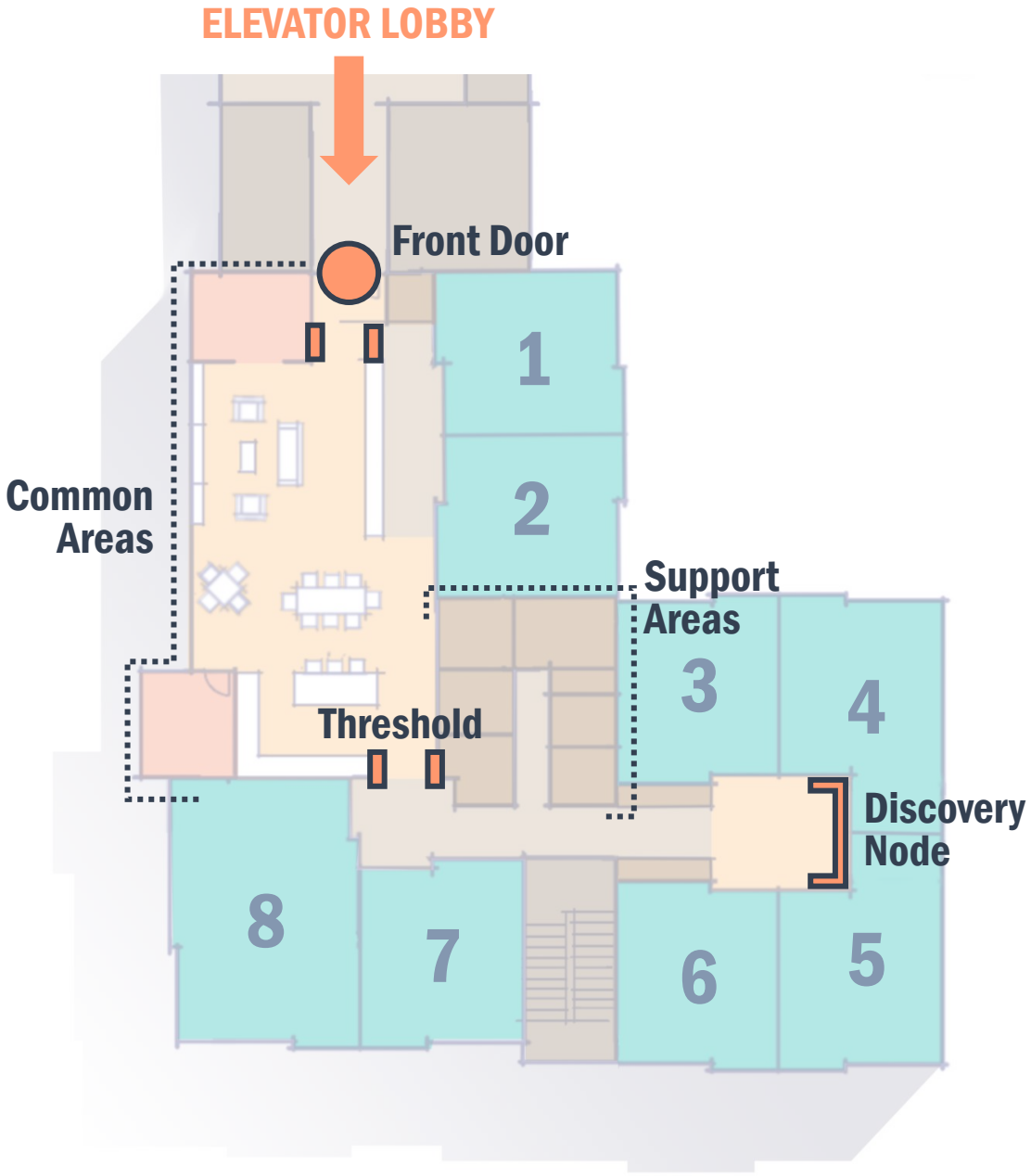
WHAT PRINCIPLES ARE DRIVING THE LAYOUT AT THIS STAGE?

Design Considerations

‘Centering’ the Common Spaces
Maintaining the balance between public and private, while trying to keep walking distances to bedrooms as short as possible

Thresholds to Cue Behavior
Clear architectural indicators at key moments in the floorplan to guide behavior for residents, visitors, and team members

Terminating the Residential Corridor
Focusing attention on a real ‘place’ at the end of the corridor while still respecting the privacy of the nearby bedrooms



HOUSES

WHAT IS THE EXPERIENCE WE'RE TRYING TO CREATE?

United Active Living

Independent and Assisted Living with Integrated Dementia | Calgary, AB, CA

UNITED ACTIVE LIVING COMMUNITIES

CALGARY, ALBERTA

Integrating Dementia

Same Experience Regardless of Abilities

Dementia residents live on the same floors, eat in the same spaces, and attend the same programs as everyone else

United Minds

Is an additional service that offers smaller and more intimate programs that also incorporate families/loved ones

Architect of Your Own Life

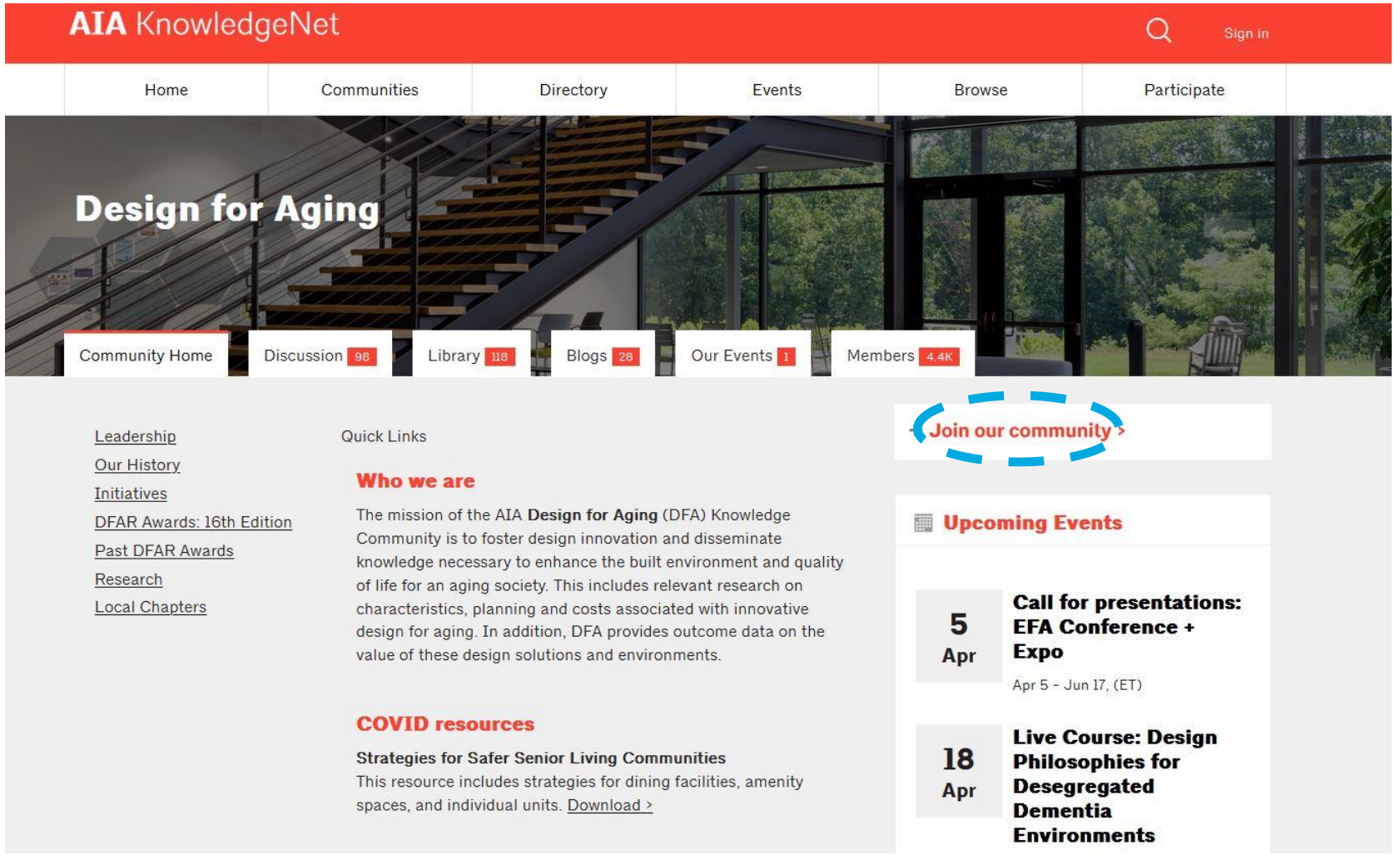
Programming is specifically tailored to personal histories, goals and challenges; incorporates whole person wellness

QUESTIONS?
COMMENTS?
DISCUSSION?

SURVEY

We encourage all attendees to complete the post course survey by **April 21 at 5pm ET.**
https://form.jotform.com/knowledgecommunities/DFA012022

Please email knowledgecommunities@aia.org if you have any questions.

THANK YOU

aia.org/dfa