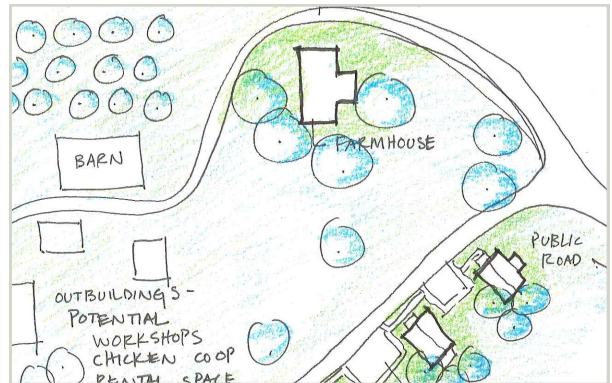# HOME MATTERS

Lifespan Friendly Homes, Neighborhoods and Communities:

Design Strategies & Implementation Guidebook

for the New River Valley

"This house is perfect for both my baby in the stroller and my dad with his walker."

"This is my community and I can't imagine leaving it."

"I love living in the country—but it feels scary to be alone now."

"I'd like less house to keep up with, but can't find a place that feels like home."

Table of Contents

Executive Summary

Home Matters:
Lifespan Design Strategies & Implementation Guidebook

By 2030, the number of persons aged 65 and older living in the New River Valley (NRV) is expected to double. In the more rural and remote areas, older adults will likely represent 25-33% of inhabitants. Similarly, housing stock in the NRV is aging. In fact, half of all homes in the NRV were built more than 40 years ago. Thus, older residents in the NRV are likely to live in homes that require substantial modifications, upgrades, and repairs to remain habitable in the coming years and are less energy efficient than newer homes.

Ninety percent of older adults want and expect to 'age in place'; that is, remain living in their homes, in the communities they love, near their friends and family. Yet, 70% can expect to need some form of healthcare services —services that are currently available and preferable when delivered in home and community-based settings. The cost of home-based care is far less expensive (to individuals, their families, and society) than hospitalization or nursing home admission, which may be needed if care is not provided.

To take advantage of home-based care, an older adult's home often needs to be modified or repaired. Yet, most older adults live on incomes that can only cover basic costs of living, not home modifications and repairs. The Aging in Place Workshop was offered as part of an ongoing public dialogue on this and other housing concerns of older adults in the NRV.

Workshop planners believe that a community that supports the needs of its aging population by addressing housing needs will reap long-term benefits including less demand on social and community services and the promotion of resident health, well-being, and quality of life.

Workshop

The Aging in Place Workshop was held in August 2013. Organizers included representatives of the Aging in Place Leadership team, a component of the NRV Livability Initiative. Over 80 community members including architects, building contractors, elected officials, aging service providers, community planners, housing professionals, academics, and community members attended the half-day workshop to discuss the meaning of aging in place and to conceptualize new intentional housing options for the regions' rural, suburban, and town areas.

Outcomes

This *Lifespan Design Strategies and Implementation Guidebook* is a compilation of a variety of housing and neighborhood models representing different place types in the NRV: rural settings, suburban neighborhoods, and town centers.

During workshop discussions, participants confirmed that the ability to age in place is dependent on multiple factors including health status, housing options, community accessibility, supportive services, and factors that support individual well-being.

The information collected during the workshop was compiled by Community Housing Partners Community Design Studio (Christiansburg, VA); the resultant housing and neighborhood models are presented in this Guidebook.

Features of Housing Models

- Privacy
- Access to transportation
- Affordability
- Accessibility
- Connection to community/ Overcoming isolation

The housing, neighborhood, and community designs that emerged reflect regional values, priorities, and culture. Each incorporates lifespan features that support resident independence and self-determination, facilitate social interactions, and promote stewardship and conservation of the natural environment.

Regardless of geographic setting, features such as social and technological connectivity, energy efficiency, and preservation of community character were highly favored. In the course of identifying preferred community characteristics, questions arose about challenges faced by individuals, builders, and contractors due to regulations, policies, and local and regional planning. Key recommendations for change included:

- Expedite and streamline permitting processes for home modifications
- Revise zoning and land use policies to allow services, amenities, and transportation to operate near housing developments
- Develop and participate in programs that facilitate home repairs and modifications at low cost to participants
- Incorporate the concept of livable communities across the lifespan into local and regional planning discussions
- Develop an aging in place action plan for the New River Valley

Recommendations and Next Steps

Policymakers, builders, architects, city planners, and residents are encouraged to apply the information provided and consider the designs offered when planning housing options for older residents. To engage decision-makers and stakeholders in their preparations to serve the NRV's growing aging population, a second workshop is being planned with a focus on local zoning and construction policy, government and private funding opportunities, consumer demand, and cost effective / energy efficient construction.

We hope you will join us!

Background

Looking at demographic trends, it is estimated that by 2030, the New River Valley will see a doubling in the number of residents age 65 or older; as many as 1 in 3 residents in certain parts of the region - as illustrated in the darkest areas of the map below. These simple demographic trends provided the original impetus for the Livability Initiative's Aging In Place Task Force to form, culminating in the Aging In Place Community Design Workshop held in August of 2013 and the Guidebook now in your hands.

PERCENT OF POPULATION OVER 65 IN THE NEW RIVER VALLEY

By block group

- 0% - 6%
- 7% - 13%
- 14% - 20%
- 21% - 26%
- 27% - 38%
- no data

5   N

Source: NRVPDC 2012. US Census Bureau
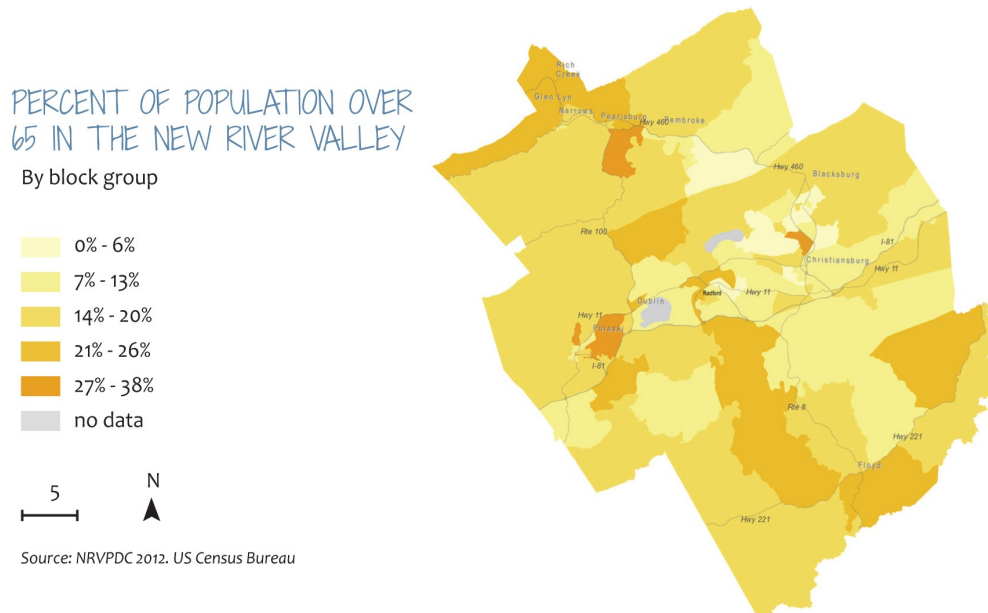
This Guidebook explores a number of housing and neighborhood models that could work across the New River Valley, from rural settings, to suburban neighborhoods, to town centers. To be certain, addressing the needs of an aging population was the primary driver of the Aging Task Force's work. Along the way however, it became clear that planning for an aging population brings benefits to the rest of the community as well.

Why It Matters for Older Adults

- *90% of older adults surveyed say they want to stay in their homes as they age*, near the family, friends, and communities they love. For those unable to live independently, there is a similarly strong preference to not have to live in a place that feels "institutional."

- When surveyed, most people believe they will stay healthy through their golden years. The truth is that *70% of people who reach the age of 65 will need some form of care* or services in their lives, for an average of three years. These services are vastly less expensive - to the individual, their families, and society at-large - when they they can be arranged in a home-based setting.

- The New River Valley's *housing stock is aging* too. The median year built for all housing is 1974, making half of the stock at least forty years old; as NRV residents approach 65, they are more likely to be living in a home that will require substantial upgrades, ongoing maintenance, and will be less energy efficient than a newer home.

- *Nearly half of the NRV's older adults are just covering basic expenses* with no financial safety margin, much less the expendable income it would take to pro-actively address the types of home modifications that would make it possible for them to live safely and independently in their homes.

Why It Matters for Everyone

- *Homebuyers tend to underestimate the number of years they will remain in a home*, with a sizeable percentage of first-time and repeat homebuyers remaining in their home for 25 years or more (37% and 39% respectively). This tendency to underestimate housing tenure amplifies the societal **challenge of "Peter Pan Housing"** - homes designed for occupants who will never grow old or experience a loss of mobility.

- Millennials, America's third largest generation, are just now entering their 30s - the time of life when people typically buy their first home. Fortuitously, the **housing preferences of Millennials appear to have a lot of overlap with the design considerations that facilitate aging in place**: flexible living spaces, quality and durability over square footage, energy efficiency and "green" building methods, proximity to community amenities and alternative transportation options, and smaller yards to keep up with.

- *Helping more people age at home makes good financial sense*. Institutionalized care is extremely costly; in the New River Valley a semi-private room in a nursing home has an average annual cost of $70,000, while a private room is closer to $80,000 per year. Clearly, these costs would quickly outstrip the savings and resources of older adults and their families, impoverishing seniors and resulting in tremendously high public costs when Medicaid eventually steps in (after personal assets are exhausted).

- Having a community that supports its aging population has its challenges, but also brings many benefits: for one, **retirees tend to produce fiscal surpluses** compared to other demographic groups because they place a much lower demand on some of the most   expensive local public services - schools and the criminal justice system.

Components of Successful Aging

PHYSICAL HEALTH

SOCIAL CONNECTIONS

SUPPORTIVE SERVICES

TRANSPORTATION OPTIONS

MOBILITY IN AND AROUND THE HOME

MEANINGFUL WORK

HELPING EACH OTHER

FLEXIBLE HOME DESIGN

EMOTIONAL WELL-BEING

HOUSING AFFORDABILITY

Workshop Summary

An Aging in Place Community Design Workshop, held on August 22, 2013, came out of a perceived need for an open discussion about aging in New River Valley communities. The workshop focused primarily on the idea of being able to age in one's own home and therefore avoid the institutional settings that currently hold a place of fear in the mind of many New River Valley residents. In the workshop, the definition of aging in place was much more fluid than perhaps originally anticipated. While many participants felt that aging in place involved staying in one home and one community for the duration of one's adult life, many others felt that aging in place can also be growing old in a new community for the duration of one's later life. Ultimately, aging in place came to be more of a general term for being able to change and grow in a home, neighborhood, or community for as long as a person chooses. The workshop brought to light many issues of planning for aging in place and questioned the wider culture of aging itself.

Over 80 community members including architects, building contractors, elected officials, aging service providers, community planners, housing professionals, academics, and community members participated in the half-day workshop to discuss the meaning of aging in place and to conceptualize new housing options for the region's rural, suburban, and town areas. Before any in-depth discussions began, participants were asked to list challenges facing aging populations today and react to some images of homes and neighborhoods in hopes that the images would enable participants to quickly identify home and site design elements that appealed to them or not. This exercise drew on the incredible breadth of experience of the workshop participants and very quickly set the tone for the conversations to follow. It allowed everyone involved to see the difficult challenges faced by residents of the New River Valley including issues of isolation, mobility, and quality of life, among others.

Throughout the workshop, specific ideas were exchanged about improving the culture of aging in communities today. Many people mentioned how useful it would be to have some sort of senior advocacy group or a source of unbiased advice that could help them navigate and find useful resources as they age. How businesses and services within the community deal with aging seems to have a huge impact on the measures discussed in this workshop. Participants strongly felt that architects and builders have to be more willing to think about the future of the people who will inhabit

Workshop participants discussed concerns and priorities while developing design concepts.

the homes they build; planners have to be able to talk about accessibility on the scale of communities - rural, suburban, or town particularly for people who are unable or uncomfortable driving. Ultimately the conversations held in the workshop weren't just about how to age in place, but how to create communities focused on the well-being and happiness

Groups within the workshop explored community and neighborhood design options for aging in place in rural, suburban, town, and interior settings, particularly to communities within the New River Valley. Each group addressed an array of physical and emotional challenges that can come with aging, such as access to amenities and social isolation. At the rural scale, one of the most prominent ideas centered around usefulness and productivity late into one's life. Having a garden or elements of a working farm was highlighted as an excellent way of instilling purpose in later life. Surprisingly, the design that came out of the group session involved houses in closer proximity to each other, acknowledging the fact that often as people age they need help and assistance from each other. The Suburban/Semi-Rural group identified a need for private space while also having community spaces nearby, such as courtyards and walking paths. They also highlighted transportation access and proximity to neighbors that could facilitate growing and changing in the same community.


The Suburban/Semi-Rural group also emphasized the need for flexibility of home design – to accommodate changing family structures and physical mobility over residents' lifespan. The Town group discussed the significant benefits of amenities that can be available within walking distance, as well as the many options for public transportation that already are part of the infrastructure of cities and towns.

Each scale of community has one thing in common, the home, whether it is an apartment or a house, everyone needs shelter that meets their physical needs. The participants spoke passionately about the topic of home planning and home design for aging in place. Most concerns were about retrofitting existing homes for aging residents. Their homes had not been built with an eye toward the future and many of these homes cannot be adapted easily or cost effectively. Perhaps the most important idea to come from the home planning discussions was the idea that a home should be built with the ability to be adapted later for aging residents. For someone to easily age in place in their own home there has to be a plan for the future when retrofits will be necessary. Many conceptual floor plans were discussed that had plenty of "flex space," space that could easily be adapted from one function to another, perhaps even with the ability to create rental space in an existing home for supplementary income, or live-in care. In order to age in place, issues have to be discussed at many stages of life, not simply delayed until it is necessary.

Place Types and Surroundings

Rural — **Semirural/Suburban** — **Town Center** — **Urban**

SETTINGS
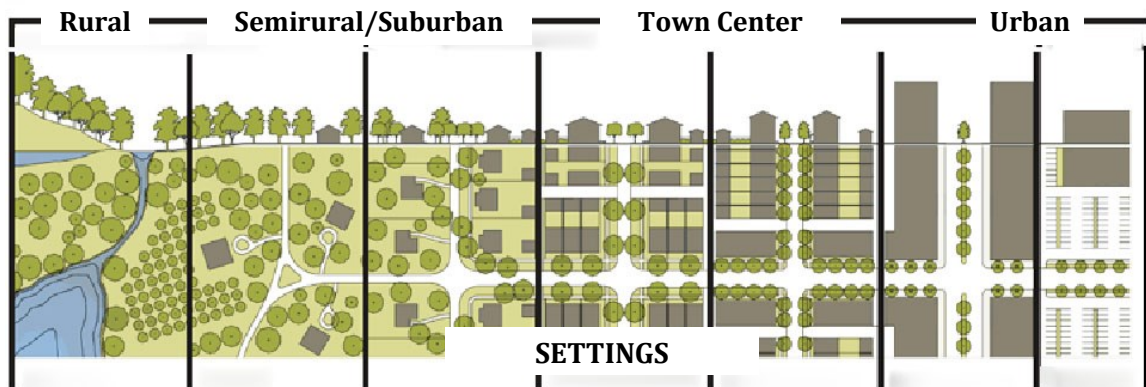
When thinking about new designs for aging in place, it's important to consider the larger perspective of the surrounding site and its neighborhood.

Ideal sites should be chosen based on their proximity to transportation (including pedestrian) choices for residents. Transportation is not only a safety and mobility issue, it is also a tool for improving the health and welfare of community members. Without sufficient transportation choices, residents can feel further isolated from society.

In response to the challenges identified and the ideas generated in the Aging in Place Community Design Workshop, design concepts were created by Community Housing Partners Community Design Studio post-workshop with focus on the participants' priorities and further concentration on innovative design and planning.

RURAL SETTINGS

Floyd

Workshop Participants' Concerns and Priorities

Many people in rural areas have spent their lives doing meaningful work on the land and want to continue having elements of a rural lifestyle as they age.

When thinking about design concepts, workshop participants were realistic about the high cost of both private and public infrastructure (driveways and roads, septic, water), and were interested in ways to minimize these through careful site selection and design.

Workshop Participants' Concerns
- Steps: in and around the home
- Lack of single-level living options
- Social isolation
- Maintaining the property: house and surrounding land
- Lack of transportation options
- Architecture out of place for a rural setting

Examples of designs that are consistent
with rural architectural styles

Workshop Participants' Priorities

Design	Homestead model (multiple buildings) Balance between wanting neighbors and having privacy Architecture that fits the rural landscape Productive open space– working farm, animals, garden/orchard
Quality of Life	Opportunities for meaningful work (e.g., workshop, gardening, animals)
Affordability	Limit infrastructure costs Energy efficiency
Accessibility	Proximity to existing roads, utilities, and community amenities

Workshop Participants' Site Design Concepts

Theoretical Rural Model Site

The workshop participants in the Rural break-out group discussed methods for adapting the traditional homestead model of rural living to include proximity to neighbors which would provide social connections and the ability to help each other age in place. The Rural group's design includes many features typical to rural living, such as a workshop, orchard, and vegetable garden.

Preferred Site Features:
- Options for single-family detached and attached homes
- Workshop

- Private and shared gardens
- Orchard

Rural design elements with 2-4 homes

Shop Building

Rural Setting: Site Design Concept A

Post-workshop, Community Housing Partners developed two different site design concepts that emphasized workshop participants' priorities and preferred site features.
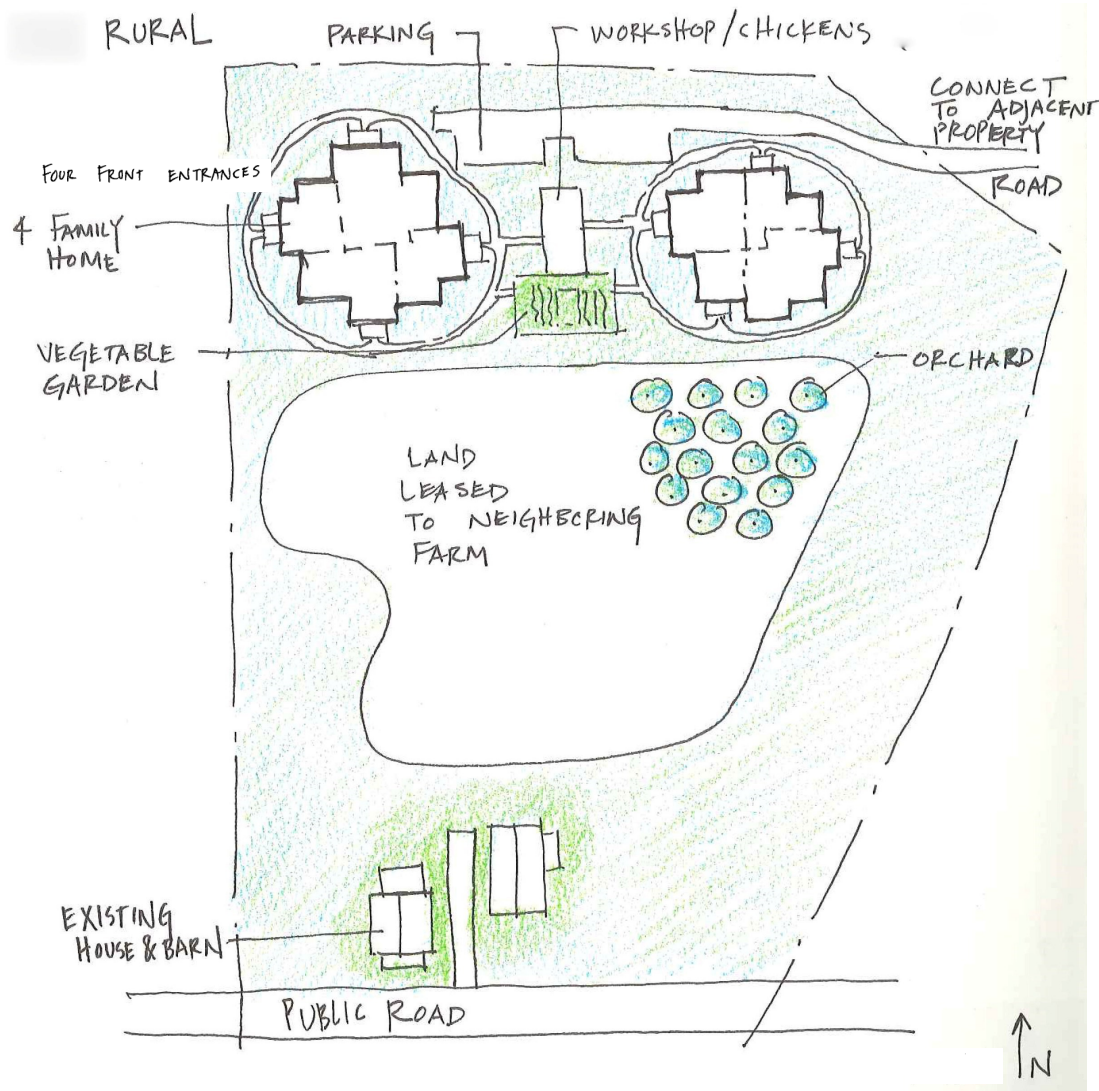
Participant Priorities incorporated into Rural Design Concept A:
- Productive open space
- Balance between wanting neighbors and having privacy
- Opportunities for meaningful work (shop, garden)
- Use of existing infrastructure for access

Rural Setting: Site Design Concept B

Participant Priorities incorporated into Rural Design Concept B:
- Homestead model (multiple buildings)
- Opportunities for meaningful work
- Balance between neighbors and privacy

RURAL

BARN

OUTBUILDINGS –
POTENTIAL
WORKSHOPS
CHICKEN COOP
RENTAL SPACE

EXISTING ROAD

FARMHOUSE

PUBLIC ROAD

NEW HOMES BUILT ON EXISTING FARM
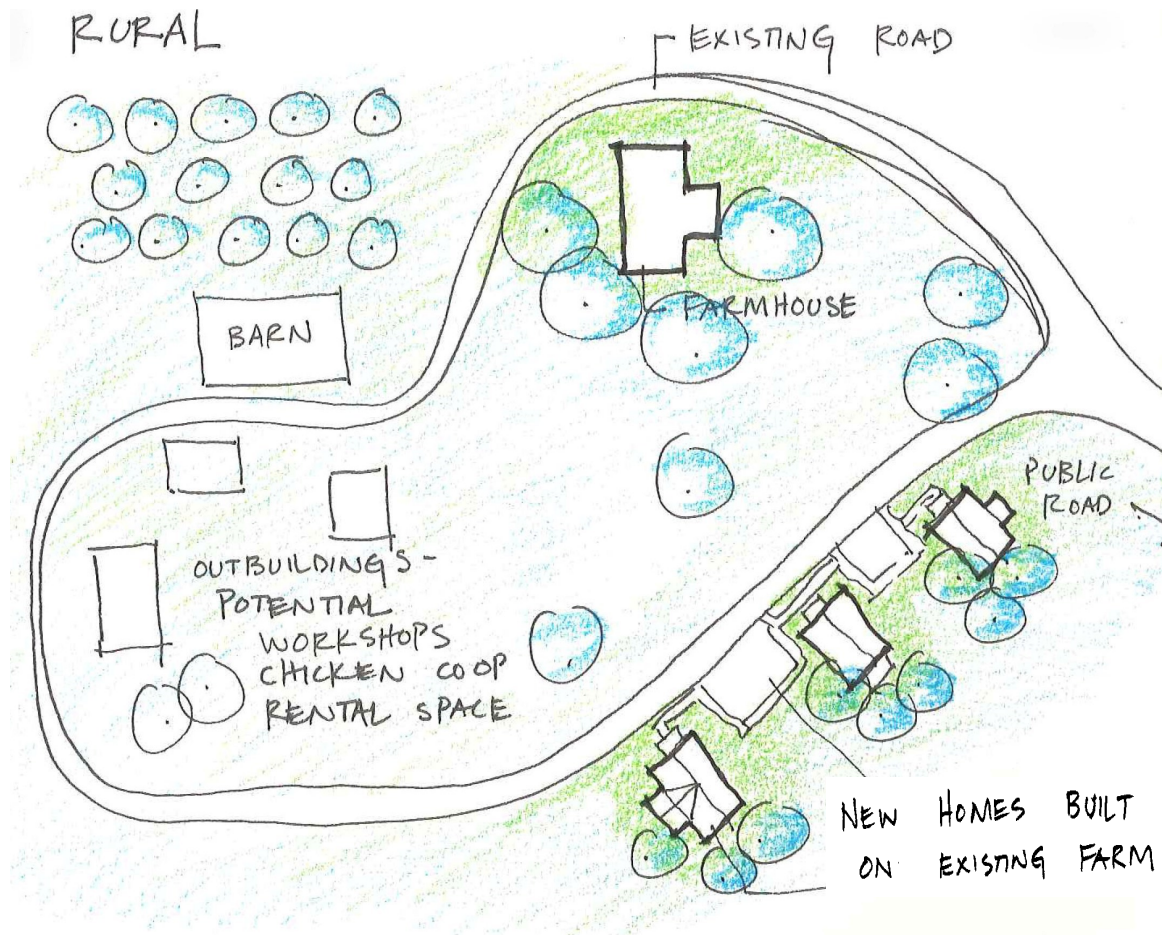
Differences Between Concept A and B

Concept A leases land to a neighboring farm to provide an added source of income to the property. It's fronted by an existing farm house on the public road so that the rest of the development is less visible and therefore more private.

Concept B is more of a circular plan with several of the buildings facing the road, which is less private yet more accessible.

Rural Setting: Case Study # 1 Williston, VT

Whitney Hill Homestead

Whitney Hill Homestead has 44 units of independent living for low-income seniors with both one and two-bedroom apartments. It was designed as an extended farmhouse with long porches and a barnhouse-inspired community center. White picket fences and fiber cement siding reinforce the rural character, with architecture that reflects local homesteads in Vermont. The location is within a pastoral setting with extensive landscape views as well as a resident community garden with raised garden beds.

The rural location includes many amenities to reduce feelings of isolation, such as a bike path, a common room with a kitchen, a courtyard outdoor space surrounded by the housing, and transportation services. The closest urban environment, Burlington, VT, is located 20 minutes away and the closest suburban environment offers shopping, churches, golf, medical providers, and banks.

In addition, the units feature a floor plan with an open kitchen as well as plenty of storage and closet space. One of the most appealing details is the private exterior entrance, which extends from a small exterior patio provided to each unit.
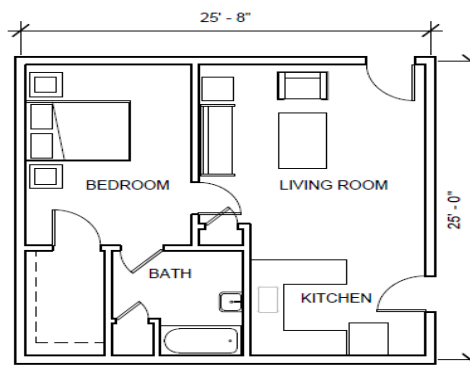
Single floor living

Barn-inspired Community Center

Rural Setting: Case Study # 2 North Andover, MA

Edgewood Retirement Community

The Edgewood Retirement Community is situated on 80 acres on a site that had once been a 300 acre working farm. The remainder of the property is preserved by a conservation easement. On a small portion of its 80 acres, Edgewood built a retirement community composed primarily of small houses and neighborhood facilities that were located in rehabilitated farm structures. The architectural design was inspired by the local history and architectural character, which recalls Shaker villages of the late 17th century. The site contained original barns, which were then renovated for their town-center-like quality within the cluster of houses. The result is an expansive community nestled within large swaths of open land and natural spaces, which provides vistas and walks for residents that are accustomed to rural living.

In addition, the community is built around Universal Design* principles. The interior doors are all 36 inches wide, fitted with lever hardware, which are much easier to open for people with limited dexterity or hand-strength. The entry to each house features a paved walk that is flush with the bluestone-covered entry porch, which is then set flush with the floor of the cottage to facilitate wheelchair access without the use of ramps.

Open space conservation easement

* Universal Design is a concept of designing all products and the built environment to be aesthetic and usable to the greatest extent possible by everyone, regardless of their age, strength, mobility, or dexterity.

Rural Setting: Elisabeth and Larry's Story

We're in our mid-50's and might be considered target candidates for a "55+ active adult community." But there's nothing about that housing option that appeals to us. We live in an old, two story farmhouse in rural Craig County with 67 acres and we do what lots of people living in rural areas do – grow a garden, raise a few chickens, bush hog, go to ice cream socials. We're around a lot of older people in Craig and we're trying to be realistic about the aging process. Here's what we talk about sometimes:

"One of us is going to fall down the steep steps to the bedroom some night and then we'll be forced to do something." So we're planning to build a small addition with a bedroom downstairs before we retire. We want to build it ourselves so we can save money and it's okay if it's not perfect.

"What are we going to do when we can't cut wood or load the woodstove?" We think a ductless mini-split HVAC system looks like a good idea to augment the wood stove. It can be installed in houses that don't have space to run ducts, it can be expanded as needed, and it's fairly affordable and energy efficient. We've also installed a solar electric system as we're concerned about rising energy prices in our retirement years.

"What about if we just need some help around the place?" We've heard about different ways that people help each other out. Some communities organize it a bit more where people bank time for helping each other…sort of a pay it forward thing, and we're thinking about seeing if our neighbors are interested.

"How about when one of us dies before the other?" If Elisabeth goes first Larry says he's staying put (Elisabeth thinks this is unrealistic). Elisabeth thinks she'll be lonely and won't be able to maintain everything so she and her best friend sometimes talk about options - but there are so many variables.

We want to hear the creek flow and the peepers peep for as long as we can, so we're going to keep talking to each other along with our friends and neighbors, and keep revising our plans.

SUBURBAN/SEMI-RURAL SETTINGS

Blacksburg

Workshop Participants' Concerns and Priorities

The Suburban/Semi-Rural break-out group discussed ways to enjoy the community aspect of a neighborhood or subdivision but with foresight to design elements that would incorporate accessibility, energy efficiency, and shared open space. This would allow the flexibility for households to live in these communities through many different stages of their lives.

Workshop Participant Concerns

- Lack of landscape features
- Lack of privacy
- Garage-dominated design
- No sidewalk. No accessibility ramps
- Sprawl-like, car-oriented plan
- Multi-story units

- Lack of access to transportation
- Units too similar looking
- Isolation
- Lack of natural light
- Style too institutional

Redmond, Washington

Iowa City, Iowa

Workshop Participants' Priorities

Design
: Flexibility of home design over time
Home and neighborhood scale
Planning for future needs

Quality of Life
: Sense of community
Personal interaction without loss of privacy

Affordability
: Compact site development
Energy efficiency

Accessibility
: Access to outdoors, parks, and trails
Access to services, food, medication, education, and transportation

Health
: Healthy living amenities like gyms and paved trails
Universal Design

Workshop Participants' Site Design Concepts

Theoretical Suburban/Semi-Rural Model

Approximately 8 Acre Parcel

The Suburban/Semi-Rural break-out group sketched a site plan of a suburban community that would facilitate aging in place. The site includes many outdoor amenities as well as transportation access and strategically-placed parking.

Workshop Plan for Town Model

Community Gardens

Pond Water Feature

Bus Stop

Pedestrian Path
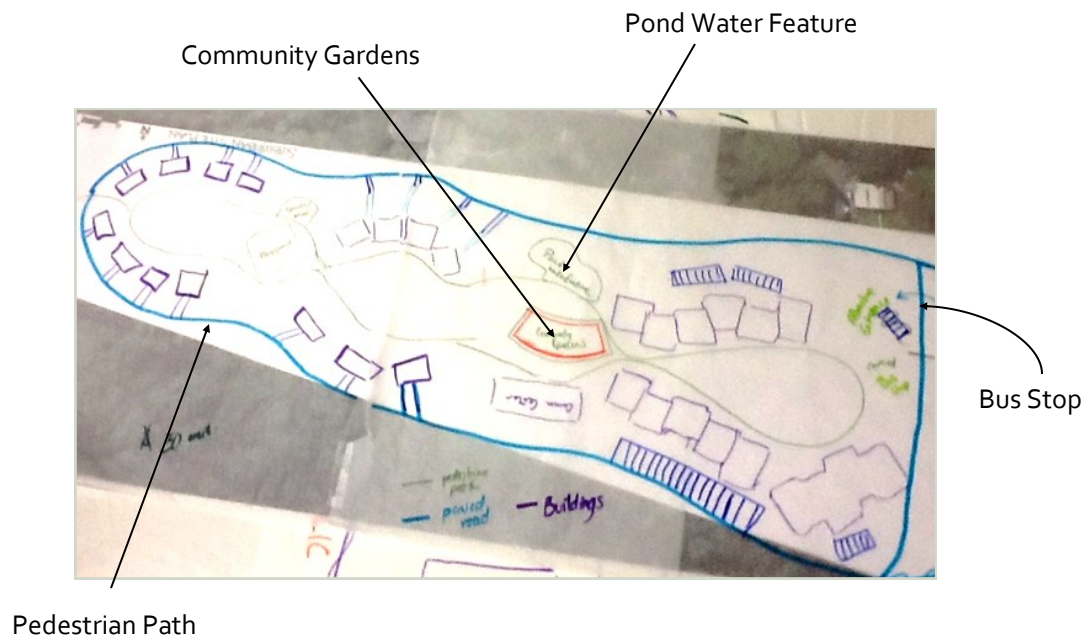
Suburban/Semi-Rural Setting: Site Design Concept C

Post-workshop, Community Housing Partners developed two different site design concepts that emphasized workshop participants' priorities and preferred site features.

Participant Priorities incorporated into Site Design Concept C:
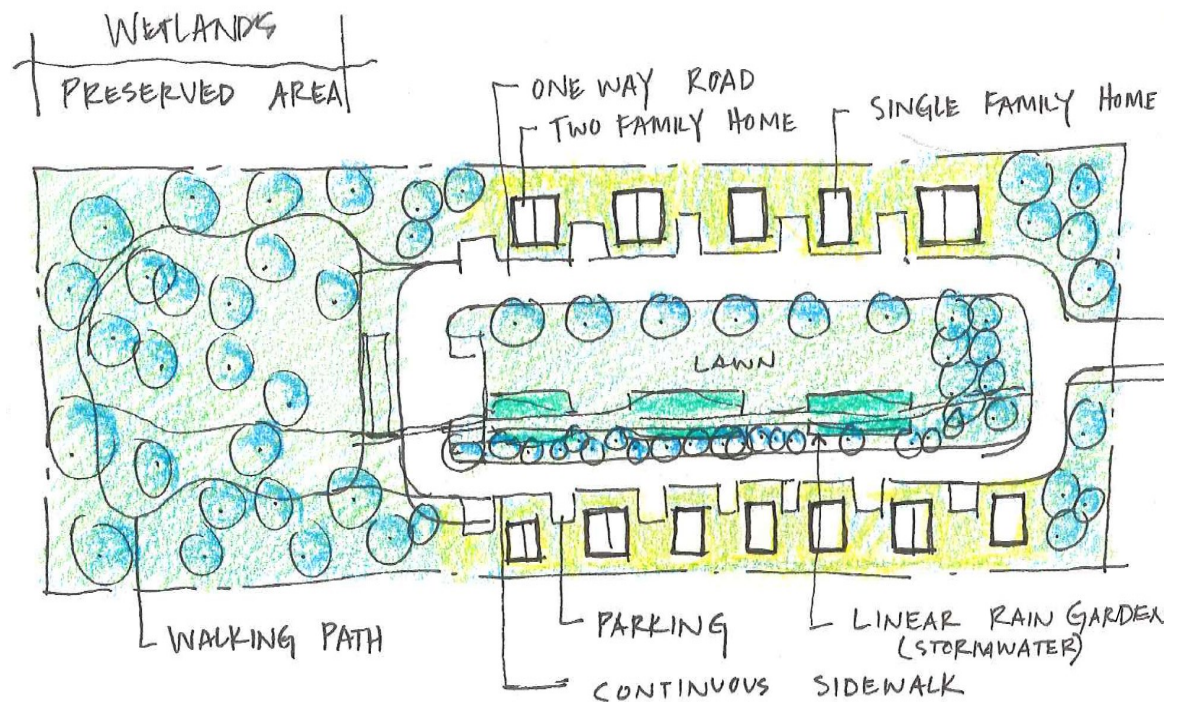- Neighborhood scale
- Access to outdoors, parks, and trails with recreational area and preserved forest
- Healthy living amenities
- Energy efficiency
- Sense of community with courtyard-like outdoor space
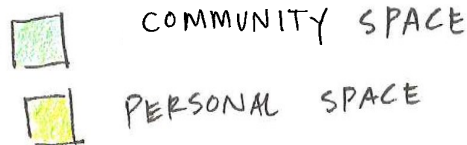

Additional features of Site Design:
- 10% preserved land
- 20% open green space
- 20 units over 8 acres

Suburban/Semi-Rural Setting: Site Design Concept D

Additional Features of Site Design:
- 30% preserved land
- 40% open green space
- 18 units on 8 acres

COMMUNITY SPACE

PERSONAL SPACE

Participant Priorities incorporated into Site Design Concept D:
- Neighborhood scale
- Access to outdoors, parks, and trails with 70% preserved land
- Healthy living amenities
- Energy efficiency
- Linear rain garden*
- Sense of community with shared lawn

* A **rain garden** is a planted depression that allows rainwater runoff from impervious urban areas, like roofs, driveways, walkways, parking lots, and compacted lawn areas, the opportunity to be absorbed.

Differences Between Concepts C and D

Both concepts are similarly oblong, yet **Concept C** is laid out to provide more outdoor space for each home whereas **Concept D** is more compact, but with an added portion of undeveloped forest to the side for more shared outdoor space.

Suburban/Semi-Rural: Case Study # 3 Abingdon, VA

ElderSpirit Community

During the workshop, Dene Peterson, a founder of ElderSpirit Community, shared her experience living in a semi-rural cohousing development in Abingdon, VA. ElderSpirit Community focuses on mutual assistance and support to help its residents age in place, and is defined as a "self-managed community."

In her description of designing and living in ElderSpirit, she noted how positive it is to stay connected to your neighbors and community within ElderSpirit, whereas typical suburban developments don't always stress the importance of familiarity. She said that it was "nice to look out your window and see a neighbor instead of a parked car."

In addition, Ms. Peterson emphasized several of the defining features of ElderSpirit which set it apart from other senior communities:

- Neighbors take walks together
- Everyone knows their neighbor
- Front porches that are large enough to allow people to gather
- Shared art studio
- Feels safe and friendly
- Small houses that live large (960 SF)
- Guest rooms at $25 a night, which anyone can use
- Kitchen and dining for 30-40 people
- Bathrooms all handicap accessible
- Care coordinators to assist with special needs

Dene Peterson, Founder of ElderSpirit Community

ElderSpirit Community includes 16 low income rental units, 13 market rate ownership opportunities and is available for anyone ages 55 and up. Maintenance costs are very low as a lot of upkeep and services are performed by residents in order to sustain a sense of purpose and mutual support.

Of all of ElderSpirit's amenities, nutrition, rest, exercise, and social interaction are consistently reinforced as important tools for maintaining good health.

ElderSpirit Community, Abingdon, VA

Suburban/Semi-Rural: Case Study # 4 Avon, IA

Reagan Park Community and Office Park

56 Garden Homes for Independent Living

Assisted Living Building

Office Park with Convenient Health Services

This 65 acre mixed-use* development is within one block of Avon's local hospital. There are walking trails and outdoor spaces throughout the development for active adult lifestyles.

The project offers many amenities focused on providing nearby services to the residents as well as the larger community, such as a beauty salon, chapel, fitness center, theater, laundry facilities, 24-hour nursing staff, and transportation. In addition, the project is nearby several recreational facilities, pharmacies, and physicians offices.

By including the indoor pool, physical therapy, adult day care and numerous other services in the office park, residents are offered an array of options that support good health within close proximity.

* Mixed-use is, in a broad sense, any urban, suburban or village development, or even a single building, that blends a combination of residential, commercial, cultural, institutional, or industrial uses, where those functions are physically and functionally integrated, and that provides pedestrian connections.

Suburban/Semi-Rural: Nancy's Story

I have lived in the same home for 15 years. It is a 30 year old house situated in a subdivision on a hill offering privacy and great vantage points of surrounding woods and fields. Living in a natural setting is important to me. Although I appreciate living close to stores, businesses, and my job, I thrive when I have open space around me and am able to view birds and wildlife from my house. Living in close proximity to other homes and in view of other people is something I have always tried to avoid.

Five years ago, at age 55, I began to think about how I could remain in my home and age in place. Since my children no longer live in the area and have families of their own, I cannot realistically rely on them for help with routine maintenance of the house and property.

Recently friends and family members have suggested that I sell my house because now that the kids are gone I don't need the space and I should find a place in which maintenance is included. But where are these houses? Also, I don't want to move to a retirement community or an apartment complex. I like where I live. It suits me and my personality. Besides, a new home or apartment would cost me more than I currently spend on my house.

Around three years ago, I developed a 10 year renovation plan for the house, in which high cost projects (e.g., replacement windows and roof, bathroom remodel) would be completed while I am still working full-time and able to afford the costs. Also, when my children come home for a weekend or a holiday, time is frequently spent on completing small projects as long as I have the materials and tools needed. Knowing that the structure of the house is sound for another 30 years gives me hope that I will be living in my home for years to come.

Nancy (right) at the Aging in Place Community Design Workshop

TOWN SETTINGS

Christiansburg

Workshop Participants' Concerns and Priorities

The Town break-out group set out to capitalize on the elements that make living in a more urban environment ideal: proximity to services and neighbors and walkability while addressing some of the concerns living in a denser environment can bring, such as lack of privacy and sometimes a lack of individuality between units.

Workshop Participants' Concerns

- Too much density
- Lack of privacy
- Military barracks-style configuration
- Lack of individuality
- No porch
- No pathways or corridors for walkability
- Two-story living
- No outdoor space
- No parking

Pedestrian Friendly and Connected to Transportation

Workshop Participants' Priorities

|	
Design	Opportunity for one-story living Efficient use of space
Quality of Life	Common green space connected to nature Semi-private porches with connection to community
Affordability	Energy efficiency Accessory dwelling units Renovation and repurposing of existing buildings Durability
Accessibility	Walkable community to amenities (10 minutes or less) ADA accessible features inside and outside Options to get around without driving (bus, walk, bike, shuttles, etc.)

Workshop Participants' Site Design Concepts
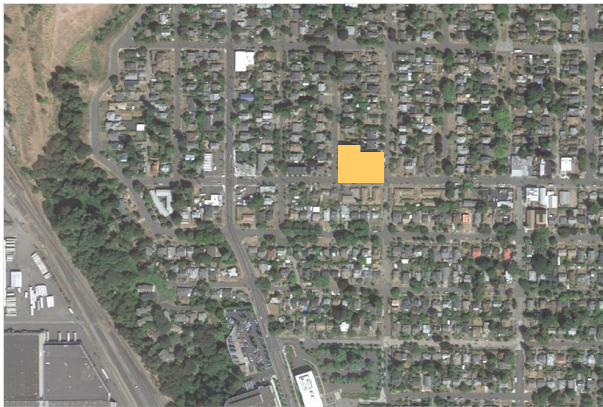
Theoretical Town Model Site

The workshop participants in the Town break-out group designed a site plan that consisted of several detached buildings clustered around an inner courtyard. The group chose this design to keep the streetscape consistent, but also create a private outdoor space sheltered from the road. The buildings are both single and two stories, creating variety in architectural style, square footage to accommodate various households sizes and usage—those wishing to age in place could live independently in a smaller unit or live with family or a caregiver in a larger unit. Small access streets were also incorporated into the design to provide more pedestrian-friendly entrances.

Parking in Rear
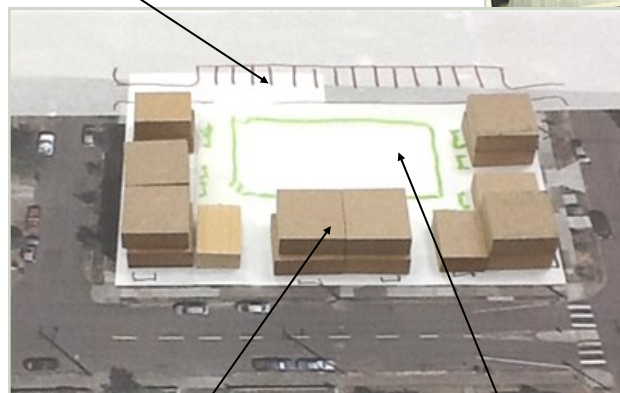
Multiple Stories

Common Outdoor Space

Workshop Plan for Town Model

Town Setting: Site Design Concept E

Post-workshop, Community Housing Partners developed two different site design concepts that emphasized workshop participants' priorities and preferred site features.
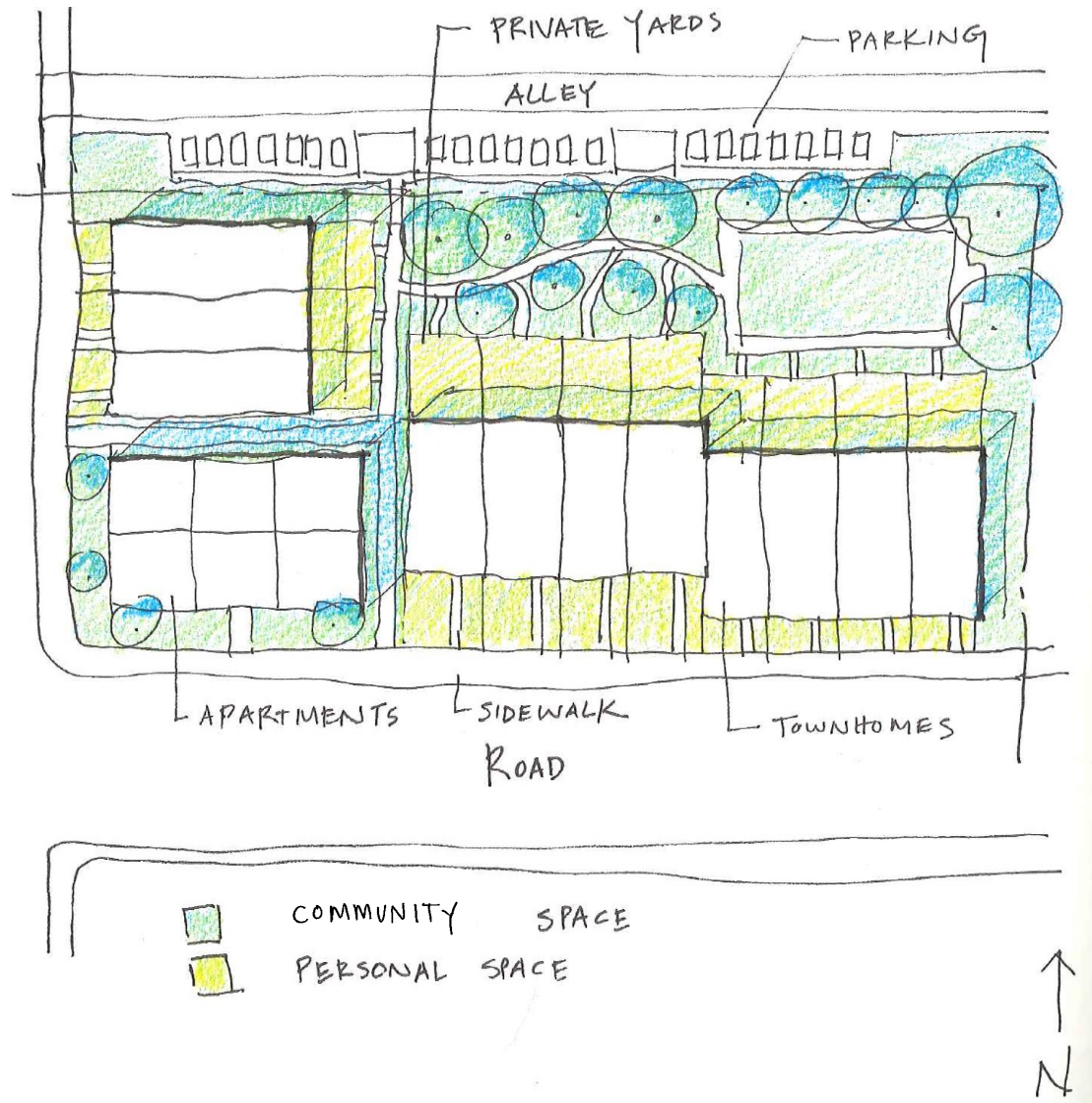
Participant Priorities incorporated into Town Design Concept E:
- Common green space
- Efficient spaces (both space wise and energy efficient)
- Connectivity to transportation
- Walkable to community amenities

Town Setting: Site Design Concept F

Participant Priorities incorporated into Town Design Concept F:
- Efficient spaces (both space-wise and energy efficient)
- Semi-private porches that face a pedestrian path
- Common green space
- Connectivity to transportation options

Differences Between Concept E and F

In **Concept E,** all of the homes front the road with their backyard space facing a large open space for outdoor recreation.

In **Concept F,** the recreation area is positioned in the center to create a more private enclave, which also allows some of the homes to front along the lawn, instead of along a busy road.

Town Setting: Case Study # 1 Charlottesville, VA

Timberlake Place

Timberlake Place, owned by the Jefferson Area Board on Aging and managed by Community Housing Partners, is a small scale development with affordable apartments for low to moderate income seniors. A comfortable scale at only 27 units, it is located in the historic Woolen Mills neighborhood in downtown Charlottesville, VA. All of the apartments are ground floor accessible and five are fully ADA compliant and available to persons of any age with a disability. The unique plan is adjacent to downtown so that seniors can interact with children and adults of all ages nearby.

Timberlake Place is 100% Universal Design compliant and EarthCraft certified. It has also been selected as a featured project in the American Institute of Architects Virginia Society Virginia Communities Exhibition.

Type Buffer
Vegetable Garden

Meditation Garden
Landscaped
Vegetated Buffer

Pocket Park
Tree Line
Rain Garden
Conservation
Easement

Town Setting: Case Study # 2 Richmond, CA

Miraflores Project

The project is centered on an environmentally-friendly approach to urban planning with the following features:

- Construction debris was recycled and diverted
- On-site renewable energy
- Innovative storm water management strategies to mitigate water pollution
- Energy-efficient buildings
- 100% native plantings for all landscaping

The Miraflores project in Richmond, CA is in a walkable, urban infill site with plenty of open space. Features include:

- There is a large affordable housing component for older adults
- A mixture of 150 for-sale and 80 affordable rental units for older adults
- Residents are intergenerational with a blend of senior housing, young families, and young professionals
- Amenities for children
- Creek restoration and a significant component dedicated to urban agriculture
- Universally-accessible units for people with disabilities
- Several bike paths and plenty of trees as well as inner courtyards.
- Two early 20th-century farmhouses on the site were preserved and are now used for community meetings.
- Three legacy greenhouses were preserved and are now leased to urban gardeners.

Greenhouses in Process of Restoration

Town/Suburban Setting: Pocket Neighborhoods

A "Pocket Neighborhood" typically exists in a town center but still provides many of the amenities of the suburbs (such as landscaped gardens and private, detached houses). In fact, this model could work in a variety of locations, such as a compact suburban development, a dense city center or even a rural setting. In order for the model to succeed, it must be pedestrian friendly and it must use a conservative amount of land.

This model is also considered to be very environmentally friendly by grouping smaller, single family homes around gardens and amenities that would occupy more land if duplicated for each individual house. Additionally, the Pocket Neighborhood deemphasizes the automobile.

Several pocket projects for older adults have recently been constructed to provide clusters of affordable housing communities that strengthen a neighborhood and encourage sustainability.

The configuration of cottage-like homes and apartments preserves community citizenship and provides convenience through proximity to services and amenities. In addition, infill development is environmentally preferred whenever possible because it conserves land, enhances walkability, and lowers driving rates compared to conventional suburbs.

Bob's Story

During the Aging in Place Workshop, participant Bob Hendrickson shared his experience living in a single-family home within the New River Valley. Mr. Hendrickson had resided in the same 100 year old house for 39 years and discovered several issues with its design that were problematic for aging in place.

Bob stressed the importance of making beneficial retro-fits to an existing home in order to maintain connectivity to a place of psychological importance to its occupants.

Bob said of his experience,
"We may grow wiser in our older age but we will certainly suffer losses … physically (vision, hearing, teeth, muscle strength etc.), mentally (short-term memory, perhaps cognitive power), relationships (deaths of loved ones, friends) , among others. If possible, we who are elderly often do not want to lose our homes. Some obstacles, however, may prevent us from remaining in our homes if we want to (or must), for example, small openings between rooms that are too narrow for wheelchairs if we should need them (temporarily or permanently), bathrooms that were not designed for our aging bodies (commodes too low, tubs with sides that are too high) steps too hard to climb and so on. **A home is not just a house; it is a meeting place for family and friends, a part of a community that has social relationships we value and a place of often precious memories. We need to work together to make affordable accommodations to our homes and to help those who will need assistance to age in place."**

INTERIORS & EXTERIORS: DESIGNING FOR A LIFESPAN

No step shower

No step entrance

Workshop Participants' Concerns and Priorities

Most homes are not designed with an aging person in mind, therefore costing an aging or mobility impaired resident to spend money on costly modifications or seek alternative housing. The Interiors break-out group helped to identify simple design and construction elements that, if incorporated at the time of construction, could enable a home to be comfortable and usable by persons of any age.
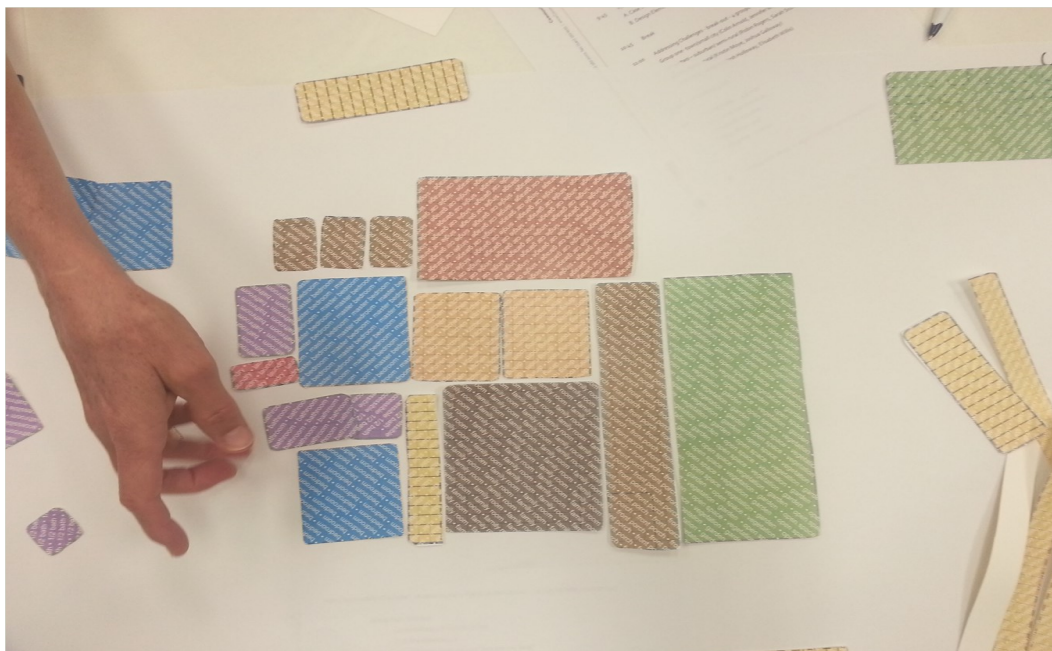
Workshop Participants' Concerns

- High cabinets in kitchen and bathroom
- Slippery tile in kitchen and bathroom
- Narrow door width and difficult handles
- Lack of closets and storage space
- High faucet in kitchen
- Dim lighting
- Narrow hallways
- Choppy floor plan

Workshop Participants' Priorities

Design   A compact floor plan
      Adaptable living/bedroom
      Space on main floor for a bedroom
      Full bathroom on first floor

Quality of Life Eliminate trip hazards
      Prepare for future home modifications

Access   Open kitchen for maneuverability

Affordability Low in maintenance costs
      Durable
      Energy efficient

Workshop Participants' Interior Design Concepts

Workshop participants worked together to design several floor plans

The Interior break-out group focused on interior design needs and concerns that covered a broad spectrum of housing types- from multi-family townhomes to the single-family home.

Lifespan Friendly Design Concepts

Principles of Universal Design can be applied to many housing and neighborhood types to ensure that the buildings are designed for a lifespan.

Universal Design is a concept of designing all products and the built environment to be aesthetic and usable to the greatest extent possible by everyone, regardless of their age, ability, strength, mobility, or dexterity. For the high percentage of people who want to stay in their own homes but may encounter problems as they age, Universal Design allows much greater potential for independence and stability for older adults. Below are a set of images that show how Universal Design Principles benefit many segments of the population and a wide range of situations, ensuring homes are lifespan friendly, not just "senior friendly."

Seven Principles of Universal Design:
1. Equitable Use
2. Flexibility in Use
3. Simple and Intuitive Use
4. Perceptible Information
5. Tolerance for Error
6. Low Physical Effort
7. Size and Space for Approach and Use

Universal Design can easily be applied to home and apartment design in order to make residents more comfortable and the spaces more adaptable. A few key features are:

- At least one step-free entrance into the home
- An accessible bedroom, kitchen, and full bathroom on a single floor
- Wide doorways and hallways to allow accessibility
- Reachable controls, switches and outlets
- Easy-to-use handles and switches
- Low or no-threshold stall showers with built-in benches or seats
- Non-slip floors, bathtubs, and showers
- Raised toilets and raised appliances for easier use

Interior Design Concept G

As a family grows, this design provides two different phases for living. The first phase (to the left of the red line) is a standard home interior and the second phase (right of the red line) allows for an addition of either a mother-in-law suite or an apartment for a care-giver or family member.

Large Spaces for Maneuverability

One-Story Living*
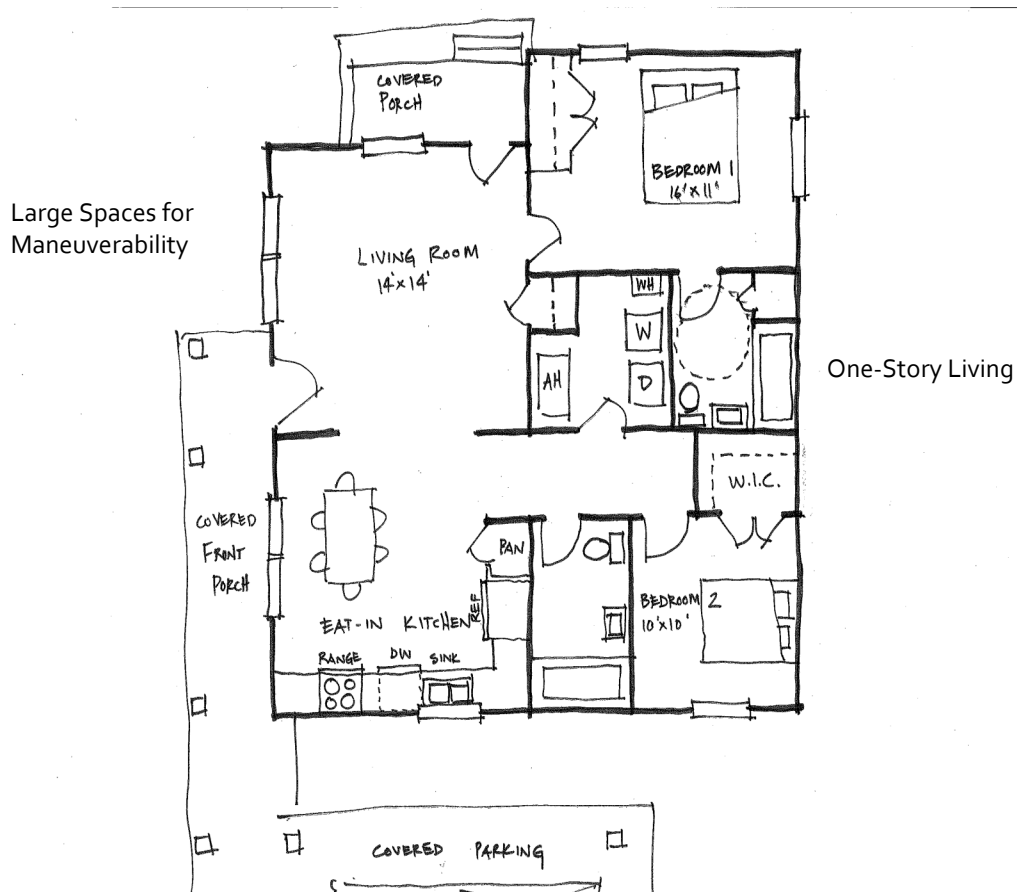
Phase I   Phase II
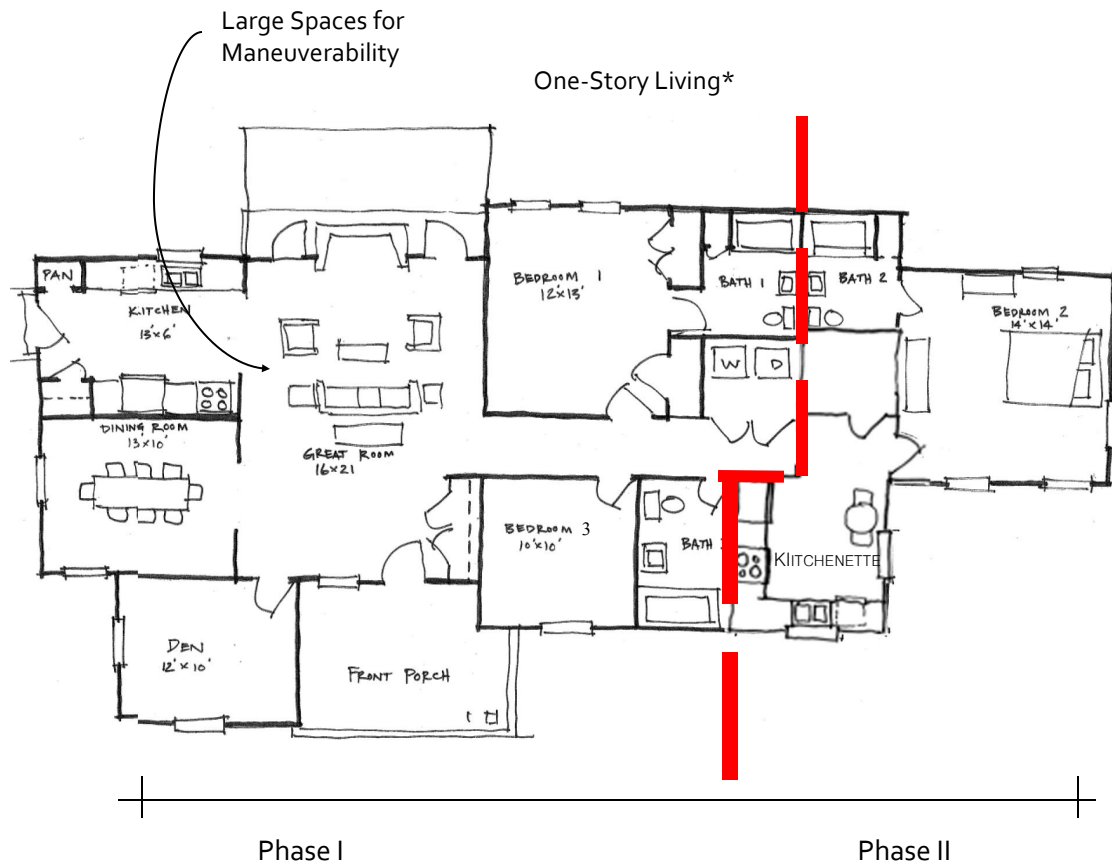
Designing and building for flexibility also means placing Phase 1 of the home on the lot so the second phase could be built within existing set-back and lot regulations.

* One-story living also works in multi-story buildings with elevators.

Participant Priorities incorporated into Interior Layout Concept G:
- Full bathroom and bedroom on first floor
- Open kitchen for maneuverability
- Planning for future needs and/or home modifications

Interior Design Concept H

Large Spaces for Maneuverability

One-Story Living

Labels within floor plan:
- COVERED PORCH
- BEDROOM 1 16'x11'
- LIVING ROOM 14'x14'
- WH
- W
- D
- AH
- W.I.C.
- COVERED FRONT PORCH
- PAN
- REF.
- EAT-IN KITCHEN
- RANGE DW SINK
- BEDROOM 2 10'x10'
- COVERED PARKING

Participant Priorities incorporated into Interior Layout Concept H:
- Full bathroom and bedroom on first floor
- Open kitchen for maneuverability
- Planning for future needs and/or home modifications

Designing the Exterior

Challenges Commonly Found in Exteriors

- Narrow Front Door
- Poor Ramp Design
- Difficult Lawn Maintenance
- Sloping Lawns/Driveways
- Difficult Sidewalks
- Need for More Walkability and Accessibility
- Poorly designed outdoor lighting—too little light or too much glare
- Inaccessible Sheds and Outbuildings

Zero step entrance from car port
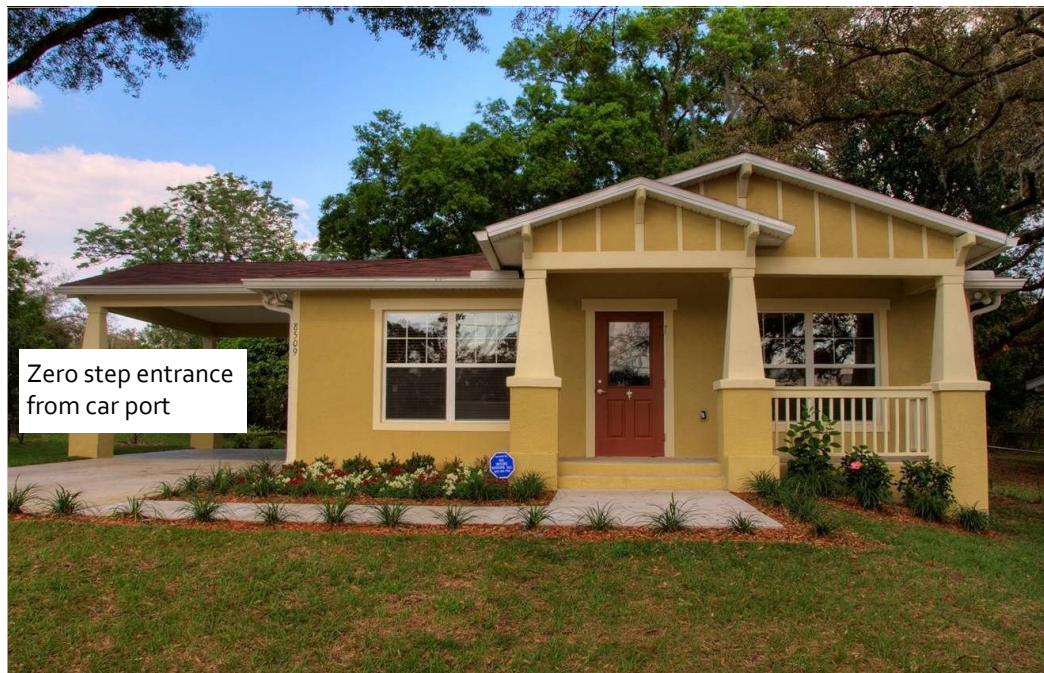
The Freedom House, New Millennial Homes

Solutions to Exterior Challenges

- Accessible sidewalk
- No steep slopes along front lawn
- Dual entrance from both front sidewalk and side driveway
- In-house washer and dryer
- Minimal lawn maintenance
- Maintains existing trees for added privacy and shade
- Slight setback and decorative details to reference local architecture
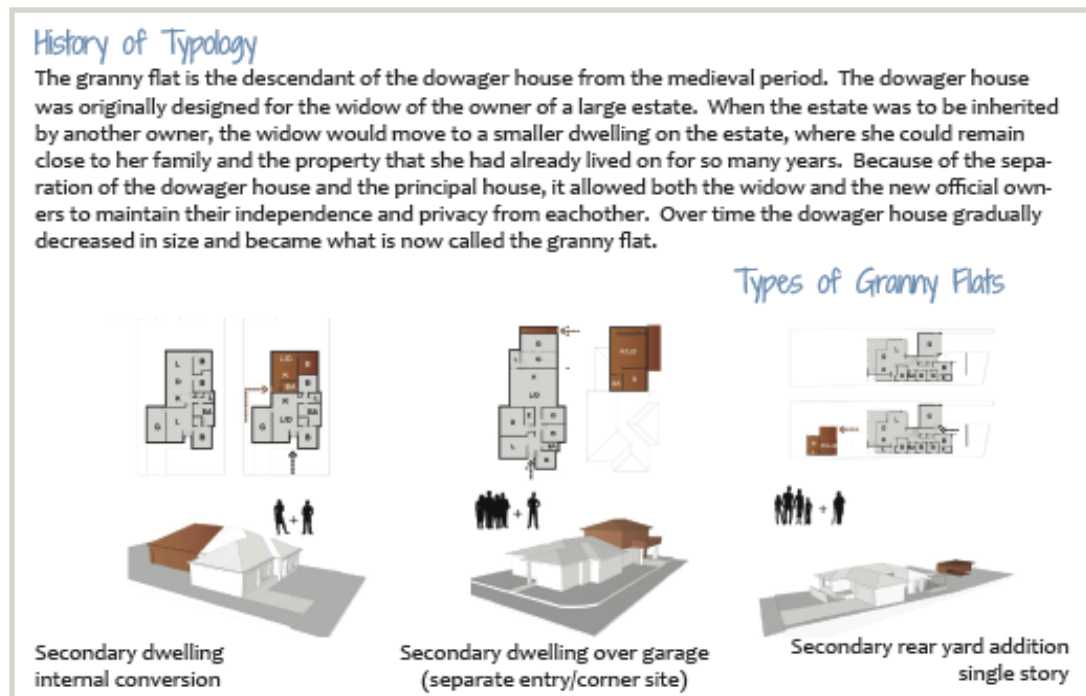- 36" wide doors and 48" wide hallways

Implementation Recommendations & Next Steps

The Aging in Place Workshop participants shared a wealth of information about their housing preferences, all of which were underscored by their desire to stay in their homes as they age. Despite differences in need, barriers that challenge one's ability to successfully age in place were clearly noted. Participants expressed the need for community and housing design options that were affordable, accessible, sustainable, flexible over time and contributed to quality of life. Regardless of geographic setting, similar priorities were shared including connectivity, energy efficiency, and preservation of the character of the community.

Key recommendations that emerged from the workshop focus on current challenges influenced by public policy, local and regional planning, neighborhood home design:

1. Expedite and streamline permitting processes for home modifications.
2. Incorporate Universal Design and accessibility features into new construction to reduce future modification costs to accommodate physical impairments and disabilities.
3. Incorporate the concept of livable communities across the lifespan into local and regional planning discussions and site design reviews for new developments.
4. Develop and participate in programs that facilitate home repairs and modifications at low cost to participants.
5. Explore zoning revisions that enable homeowners to create granny flats or accessory dwelling units for themselves, a caretaker, or an aging relative while addressing neighborhood concerns about over-occupancy and conversion to student rental.

History of Typology

The granny flat is the descendant of the dowager house from the medieval period. The dowager house was originally designed for the widow of the owner of a large estate. When the estate was to be inherited by another owner, the widow would move to a smaller dwelling on the estate, where she could remain close to her family and the property that she had already lived on for so many years. Because of the separation of the dowager house and the principal house, it allowed both the widow and the new official owners to maintain their independence and privacy from eachother. Over time the dowager house gradually decreased in size and became what is now called the granny flat.

Types of Granny Flats

Secondary dwelling internal conversion

Secondary dwelling over garage (separate entry/corner site)

Secondary rear yard addition single story

6. Provide incentives for using energy efficient materials and methods when building or modifying structures.

Continued on following page…

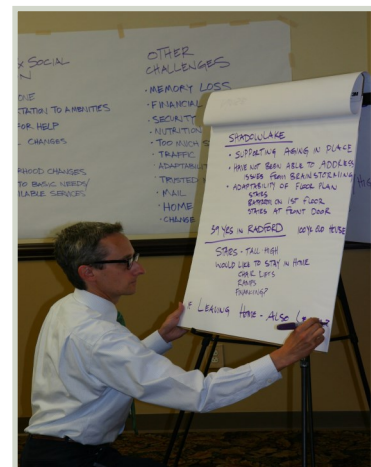## Implementation Recommendations & Next Steps Continued

7. Explore community-based aging in place models that can offer access to services to community members at lower cost.
8. Revise zoning laws and land use policies to permit services, amenities, and transportation to be located near housing developments.
9. Provide incentives to older adults for home modifications, and property tax relief.
10. Incorporate design elements that preserve the character of a neighborhood.
11. Develop an aging in place Action Plan for the NRV.
12. Work with architects and home builders to incorporate lifespan friendly design principles in new construction.
13. Provide incentives to architects and builders for incorporating lifespan friendly design features .

The workshop served as a strong starting point in the NRV's journey to create livable homes and communities for residents of all ages. To engage decision-makers and stakeholders in their preparations to serve the NRV's growing aging population, there will be a follow-up workshop. Topics are expected to include:

- Local government policies pertaining to neighborhood and community design
- Funding and ownership options
- Consumer demand and understanding
- Cost effectiveness of designing building, and marketing lifespan friendly homes and neighborhoods

This workshop will facilitate discussion about specific strategies to achieve the housing options designed in the first workshop. Participants will also delve into how to provide support to older adults facing housing challenges and the options available to them. The workshop will be an opportunity to continue making the NRV livable for everyone.

Let's keep working to make the NRV a great place for everyone to live for a lifetime. We look forward to seeing you at the next workshop!

Image Sources

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- Page 2 Image of Farmhouse- http://homesbro.com/fascinating-modern-farmhouse-with-pool-designs/modern-rendering-ideas-traditional-modern-farmhouse-patio-design/

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- Page 22 Image of Timberlake Place Site Plan- http://cvilletomorrow.typepad.com/charlottesville_tomorrow_/2011/08/timberlake_place.html

- Page 22 Image of Timberlake Place House - Courtesy of Community Design Studio

- Page 23 Image of Miraflores Plan- http://switchboard.nrdc.org/blogs/kbenfield/building_walkable_affordable_a.html

- Page 23 Image of Miraflores Greenhouses - www.epa.gov/region9/mediacenter/miraflores/

- Page 24 Image of Pocket Park- www.aarp.org/home-family/livable-communities/info-05-2012/pocket-neighborhoods-common-ground.html

- Page 24 Image of Pocket Park - Courtesy of Community Design Studio

- Pages 27 Images of Single Family Home Design- Courtesy of Community Design Studio

Aging in Place Workshop Sponsors and Partners

Community Housing Partners

New River Valley Livability Initiative

Community Design Studio

Community Foundation of the New River Valley

New River Valley Home Consortium

New River Valley Agency on Aging

Habitat for Humanity of the New River

New River Valley Home Builders Association

New River Valley Planning District Commission

Virginia Tech Center for Housing Research

Virginia Tech Center for Gerontology

Blue Ridge Independent Living Center

New River Health District

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