

# **Autism Speaks House to Home: Daily Support**

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## **Together Team:**

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### Assignment

The *Autism Speaks House to Home Prize* is looking for innovative approaches to enabling autistic adults live safely outside of the family home, in order to achieve independence and self-actualization. Current approaches have often been insufficient and unsuccessful due to:

- High cost of specialized facilities and daily support services
- Inadequate support services that don't account for the vast variety of needs
- One-size-fits-all design that is at odds with the need for highly individualized solutions
- Focus on housing to the exclusion of other essential elements of independent living and personal fulfillment

A radical solution is needed. But perhaps the most radical solution is also the most basic — to enable individuals to leave the family home, we need to connect them with the community. It has become commonplace to say “it takes a village” to raise a child. That’s also true of autistic adults — it takes a village to enable someone to be independent.

Welcome to our Village, where autistic adults are able to live as independently as possible, receive the support services they need, support and socialize with each other, integrate as fully as possible with the larger community, and live the lives they want.

### Audience

The Village is designed for two different autistic populations, those who require **daily support** and those who require only **weekly support**. Individuals within these groups have a variety of needs that may often be similar in focus, though differing in the level of support needed. By offering a variety of support services coupled with the flexibility of customization, both populations can be served by the same set of solutions.

The additional, often disregarded, audience for the Village is the **larger community** in which it resides. All communities benefit from respecting, interacting with, and learning from diverse individuals.

Our strategy for the Village is guided by the following key principles:

**Self-sufficiency**

Residents should be encouraged and empowered to be as self-sufficient as they are able and as they desire. This requires designing spaces, programs, and technologies that support a variety of needs and preferences.

**Customization**

Each individual's needs and preferences are different and may change over time. As a result, the Village's solutions must be flexible and customizable enough to accommodate the evolving needs and preferences of people as they progress through life.

**Community**

Social isolation benefits no one, neither the people isolated nor those they are isolated from. The Village aims to create a vibrant community for residents through shared spaces and programs. Even more important, there must be connections to the larger community beyond, both by bringing the community into the Village through focused volunteering and by creating strategic partnerships that invite residents out to autism-friendly places, events, and other opportunities.

**Cost-Efficiency**

In order to reduce the high costs and extended time required for new construction, the Village should make use of existing housing stock as much as possible. In addition, existing technologies should be leveraged as much as possible to reduce the need for custom design, and programs should seek to encourage volunteerism both to reduce costs and to strengthen community ties.

**Scalability**

The Village should be scalable, both in terms of being able to add resident units in terms of quantity and in terms of being able to integrate all units into a cohesive community experience. The Village should also be replicable for different towns and cities.

### Hub

To achieve the most effective combination of independent living, shared support services, and community relationships, the Village will have an integrated set of units, extending from the individual Home up to the comprehensive Village. These include:

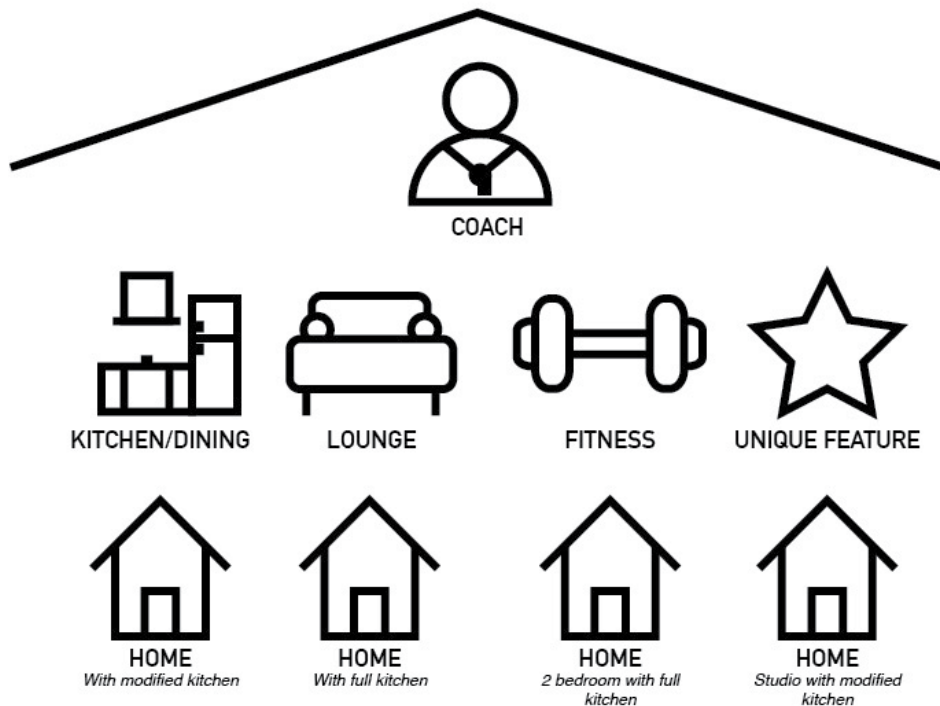
#### Home

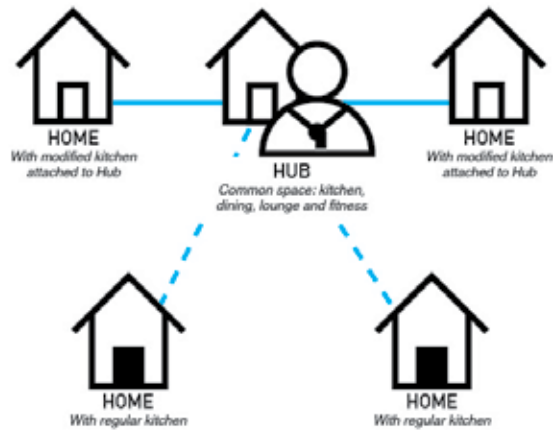
Each Home is a self-sufficient apartment or house, ranging from a studio to a 2-bedroom. This variety enables residents to choose to live alone or with a roommate. Homes would be designed either with a regular kitchen that has a full set of standard appliances, for those residents who are able to use a full kitchen safely; or with a modified kitchen that has a limited set of appliances (e.g., no oven/stove), for those residents who have difficulty with meal prep and kitchen safety. Homes would be designed with environmental treatments suitable to autistic adults, but can otherwise be furnished and decorated as residents choose, just like a regular home.

#### Hub

The Hub is a set of communal spaces shared by all residents, including a communal kitchen and dining area, a lounge, a fitness room, and laundry facilities, as well as one special amenity, such as an art studio, garden, or game room. These spaces would be designed 1) to support residents who need help with daily activities, such as meal prep; 2) to encourage socializing among residents; and 3) to reduce the size and cost of individual Homes (e.g., one communal laundry facility instead of individual laundry facilities). Multiple Homes would be directly attached to the Hub, including those with both regular and modified kitchens.

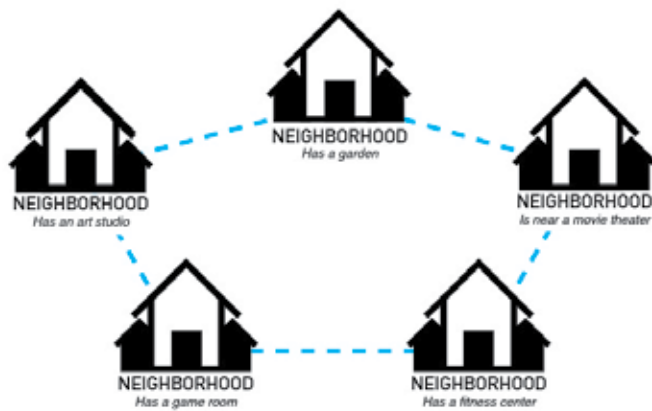
The Hub is facilitated by a full-time Coach, someone who has been trained to work with autistic adults, but is less a nurse than a college dorm-style advisor. The Coach provides a variety of daily support services, including supervising communal meal prep, running social events, and helping residents with a variety of daily tasks, such as online shopping, paying bills, taking meds, making and keeping doctor appointments, organizing schedules, etc. Adults who need daily support should live in Homes directly attached to the Hub, to be able to easily access communal areas and the Coach as needed.





## Neighborhood

Beyond the Hub and attached Homes are additional Homes within walking distance, which together make up the Neighborhood. These unattached Homes range from studios to 2 bedrooms, all with fully functioning kitchens. Residents have full access to the Hub communal spaces and Coach as much as needed and desired. Adults who need only weekly support could live in Homes either attached to the Hub or within walking distance, as preferred.



## Village

In larger communities, there could be multiple Neighborhoods, which would be integrated together into a Village. The purpose of this integration is to offer additional amenities, because each Hub could have a different special feature — such as an art studio, garden, game room, pool, etc. — that residents of all Neighborhoods would be able to use. In addition, this integration enables a wider social circle, because training and social activities would be open to residents of all Neighborhoods. There could also be sharing of staffing, for cost efficiencies.

## Community

The Village would be integrated into the larger Community where it is located in order to expand support services, help residents discover new opportunities, and build relationships. Community volunteers would be invited into the Hub to help with meal prep, provide job training, teach fitness classes, offer financial assistance, and more. Strategic partnerships out in the Community would be designed to create employment opportunities, social opportunities geared to autistic adults (such as a museum night for those with special needs), and discounts at local retailers. There could also be partnerships with local schools and companies to develop ongoing volunteering programs. This Community integration is the last essential piece of the solution, because it would help residents live successful independent lives not only within the Village, but also out in the world.

Stacey's Experience

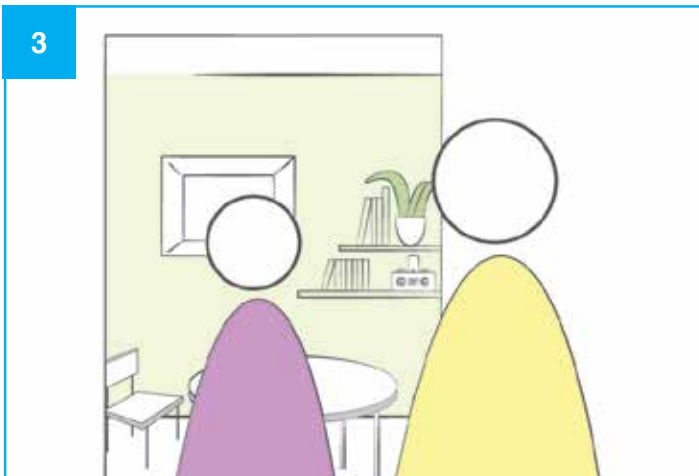


Stacey is a 32-year-old woman who is moderately impacted by her autism. She lives in a Pod attached to the Hub, so that she can get daily support as needed.

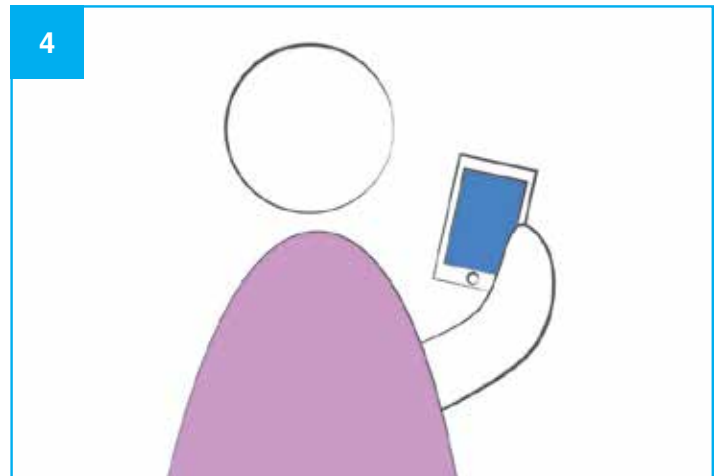


Stacey can wake and dress on her own. She likes to wake up to the song Beautiful, by Carole King, so she has her smartphone set to play it at 7am.

Stacey makes her usual breakfast of toast and coffee in her modified kitchen, which has the basic appliances she needs for simple meals.

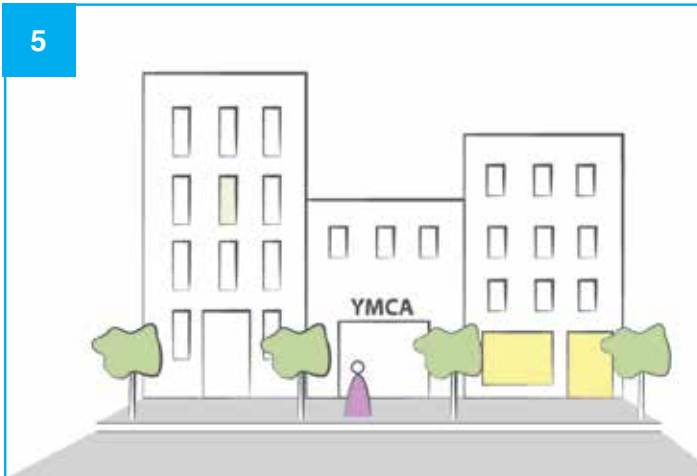


Stacey needs supervision to make sure that she takes her medication, and reminders to arrive at work on time. The Hub Coach stops by around 8:30am to check that she has taken her daily meds, is ready to go to her part-time job at local bakery, and has remembered to take her workout clothes with her.



Stacey can get to places on her own if they are within walking distance or she can take public transportation. She uses the Community transportation app to get to work. With its pre-set preferences, it guides her to take the bus instead of the subway, which she hates.

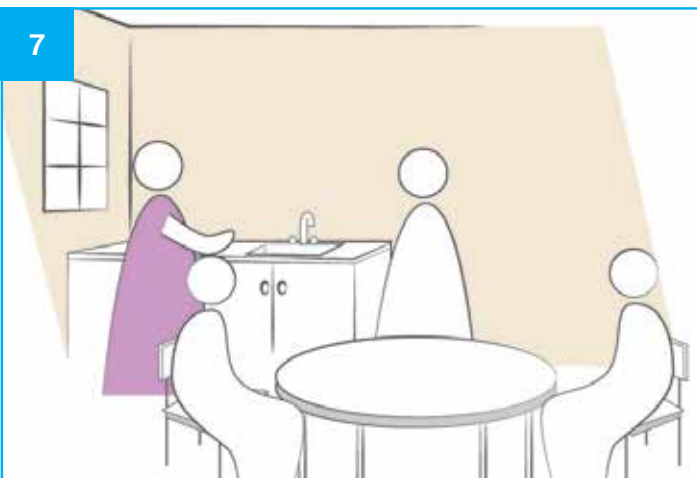
Stacey's Experience



Stacey often takes gym classes at her local YMCA, within walking distance to her home. After work, the schedule app on her smartphone reminds her that her favorite Zumba class is today, so she heads to the YMCA.



Then Stacey heads back home. Every afternoon, she has time scheduled with her Coach, who helps her order groceries from FreshDirect, pay her bills, update her schedule app, and do other tasks she needs support for.



Stacey needs help preparing anything other than very simple meals. At dinner time, she goes to the communal kitchen, where residents prepare the meal together and then enjoy it as a group. The meal prep is led by a local chef, who volunteers here once a week, and uses the opportunity to teach residents basic cooking skills and safety.



Stacey likes to socialize with peers, but needs help making plans. She loves the fact that there's always an after-dinner group activity planned at the Hub. Tonight is movie night.

When the movie is over, the Coach encourages Stacey to invite everyone to the upcoming performance by the theater group she belongs to. Then she says goodnight to everyone and heads back to her Pod to go to sleep.

### Living Spaces

Living spaces could range from studios to 2-bedrooms, to enable residents to live alone or with a roommate, as they prefer. It is generally more affordable to renovate existing apartments than build a new building from the ground up. Landlords and building owners could be given tax breaks or other financial incentives to renovate apartments/condos for tenants with special needs and low incomes.

### Communal Spaces

These spaces do not need to be large, but need to function well. In major cities, space is at a premium, but current trends in design (such as micro-housing and modular systems) could help create multifunctional communal spaces. Modular furniture and storage systems would enable a lounge to easily become a large dining area for 10 people, and then pack up to create an open space for a yoga class. It could be a fun activity for residents to transform the spaces in different ways. We could also have pieces of furniture that are “nook-like” that allow for someone to easily retreat and get away from over-stimulation.

Each Hub also needs to have a small private space for the Coach to take a breather. Even though these environments are designed for autistic people, the staff also needs space to conduct their business. This will help insure that the staff is also healthy and able to take care of themselves.

### Environmental design and Control

Many people with autism struggle with their body in relationship to environments. Spaces should remain cozy and not vast. Designers also need to take into consideration sensory sensitive approaches to lighting, acoustics, palette, and tactile experiences. Ceiling heights should not be too tall, which helps with acoustics, and surfaces need to be soft, without hard corners.

Leveraging existing technology and new building systems, many environmental elements can be flexible and adjusted for an individual's needs. Off-the-shelf items like Phillips' Hue lights are great for adjusting the color temperature of a room, and can be programmed remotely in real time or in advance from a smartphone. The same is true for temperature control systems, which can set a Home temperature to an individual's preferences automatically. Residents could also use apps like Spotify to set music or ambient noise from a smartphone. These technologies and systems would enable residents to have a great measure of environmental control over their personal space.

### Housecleaning

Many adults with autism have difficulty keeping their homes clean and orderly. Each Hub would provide cleaning equipment and supplies, which could be used as needed by those residents able to clean independently. For those who need support, cleaning buddies would be paired up, or even larger cleaning parties, who would work together to clean their Homes, making the work faster and easier. The Coach would do regular check-ins to make sure that Homes are kept clean, and would also provide help with Home organization and purging (for those with hoarding tendencies).  
Shopping

Some adults with autism need help with shopping, while others don't. Many online and local delivery services are now available, which make it easy to shop remotely, for those who are uncomfortable in crowded retail environments. Residents can use these services (FreshDirect, Amazon, etc.) on their own, if capable, or with the assistance of the Coach. Community volunteers, such as high school students, could also go shopping for residents at local stores, or accompany residents on shopping trips, treating the errand as a social activity as well.

### Meal Prep

Some adults with autism have no difficulty preparing their own meals, while others need varying levels of support, so Homes would have regular or modified kitchens as appropriate. Those who are comfortable cooking, but need assistance with meal planning or grocery shopping, could use services that provide meal kits, such as Plated or Blue Apron. These services offer a limited selection of recipes to choose from, and then deliver a set of pre-measured ingredients and easy-to-follow directions. Those who are not comfortable cooking could order ready-to-eat meals from local restaurants or grocery stores like FreshDirect.

The additional option that would be open to all residents, regardless of the need for support, would be to participate in meal prep and dining in the communal kitchen at the Hub. For breakfast and lunch, simple meals could be available buffet-style, similar to the continental breakfast supplied by many moderate-priced hotel chains. For dinner, the Coach could oversee group meal prep, treating it as an opportunity for residents to learn basic cooking skills and safety, eat a nutritious meal, and socialize with others. This communal meal would also be a great opportunity to invite local chefs, caterers, and cooking school students to volunteer on a monthly, or even weekly, basis.

### Finances

Many adults with autism need help with financial tasks, such as paying weekly bills, making decisions about purchases, longer term planning, and other matters. The Coach could provide one-on-one assistance for personal matters, such as paying bills or making specific purchases. There could also be a weekly Pay-the-Bills event at the Hub, where the Coach provides assistance to a larger group at once. To help residents develop better financial literacy in general, or to learn more specific skills like how to invest in the stock market, financial experts from the community could volunteer to run workshops. Residents could also be encouraged to use an app like Mint to keep track of their finances on a more regular basis.

### Scheduling & Organization

While many adults with autism prefer the consistency of regular schedules, many also need help with creating schedules, making and keeping appointments, and generally staying organized. The Hub's programs -- meal prep, fitness, social events, Coach check-ins, etc. -- would be scheduled at consistent times during the day or week. In addition, all residents would be encouraged to use a scheduling app, such as Habitica, to set tasks and appointments, as well as reminders to do them. The Coach would provide support for this technology by help-



ing residents manage schedules on a daily or weekly basis, as necessary. The Coach or community volunteers could also offer training workshops in time management and organization.

### Health & Medication

The purpose of the Village is not to take on the role of doctor, but instead to help residents comply with health plans developed with their doctors, as well as to promote general wellness. The Village could partner with a local clinic to offer basic wellness services, such as regular check-ups, flu shots, etc., either at the clinic or at the Hub. For health appointments with other doctors, residents could be encouraged to use an online service like ZocDoc, which makes it easy to schedule appointments and get reminders.

Many adults with autism require daily medication, but often have difficulty remembering to take it in the right amount or combination, or even at all. Residents could get support through services like PillPack, which simplifies medication by providing individual portions organized by day and time, through apps like Medisafe Meds & Pill Reminder, and through technology like smart pill bottles that alert you when they are opened. The Coach would also provide daily supervision for those who require it.

### Fitness

The Hub would have a dedicated fitness room or multi-purpose room that could be used for fitness activities. Residents could use fitness equipment on an individual basis as desired, and regular fitness programming (yoga, Zumba, etc.) would be offered, led by community volunteers. The Village could also partner with local fitness centers to provide discounted memberships.

### Social Activities

The Village would develop a regular program of social activities that all residents could participate in. Hubs in different Neighborhoods could each have a special amenity to support these activities, such as a game room, garden, screening room, etc. Residents with special skills and interests could be invited to lead activities, along with community volunteers. The Village could also create partnerships with local cultural and entertainment institutions to provide opportunities for residents, such as a museum night designed for those with special needs.

### Training

The purpose of the Village is not only to help residents sustain themselves, but also to help them grow and find fulfillment. Aside from support for daily needs, the Village would also offer a variety of training opportunities, to encourage residents to learn, explore, and expand their potential. These workshops could be led by the Coach or community volunteers, and could cover virtually any topic that might be of use or interest, such as job interview prep, memoir writing, basic photography, conversational skills, and much more.

### Transportation

Many towns and cities have developed useful transportation apps, but none are specifically designed for adults with autism. Leaving the comfort and safety of the Village would be made

easier with a custom-designed transportation app that not only accounts for the variety of available modes of travel (walking, bus, subway, etc.), but that also adjusts to the individual's preferences. For example, the custom app could be set to offer routes that avoid walking on rainy days, or odd-numbered bus routes, or the subway during rush hour. These kinds of settings would enable residents not only to get where they want to go, but also to get there in comfort.

In addition, clear wayfinding could create easy-to-follow routes between the Hub and unattached Homes, and between the Hubs of different Neighborhoods.

### Staffing

Each Neighborhood Hub would need to be staffed by 2-3 Coaches in rotation, for 24/7 availability. Trained to work with autistic adults, they would provide daily support for basic tasks, including meal prep, online shopping, paying bills, taking meds, making and keeping doctor appointments, etc. To keep the cost of this position low, and also to prevent burnout, the Coach position could be staffed by graduate students at local schools of public health or social services. In exchange for their work as a Coach, they could be compensated with lodging (their own Home) and a stipend.

Several additional staff would take on responsibilities for the entire Village, rather than for a single Neighborhood. These include:

Programming Coordinator: Schedules activities and coordinates people running them.

Volunteer Coordinator: Develops community partnerships and schedules volunteers (high school students, seniors, corporate groups, etc.).

Programming Coach: Runs activities, trains volunteers to run activities and provide other support for residents.

Tech support, maintenance staff, supervisory boards, etc. would also need to be determined.

### Resident Eligibility

The Village would be open to any autistic adult who needs daily or weekly support, but would not be appropriate for those who need 24/7 care. Partnership could be established with local health and social services organizations to identify candidates. If the initial focus is on low-income candidates, this program may qualify for government funding.

### Resident Orientation

Before a new resident moves in, the Village would work with the resident to identify the type of Home desired (individual or roommate, regular kitchen or modified, attached or unattached), set up the personal environment, and determine the type and level of support services needed. On arrival, the resident would be welcomed and oriented to the Hub by the Coach, and would be invited to group activities to help integrate into the social life. Through a combination of preparation and invitation, the new resident should be made to feel welcome, comfortable, and above all, at home.

In order to make the Village a reality, the main design tasks would include:

#### **Architectural/Environmental Design**

- Identify existing housing stock for use
- Retrofit housing as necessary for needs of autistic adults, safety, etc.
- Develop environmental design appropriate to autistic adults (palette, acoustics, temperature control, etc.)
- Develop signage and wayfinding system for communal Hub areas (and individual Homes) as needed

#### **Technology Design**

- Identify effective online resources that can be integrated into the program, such as ZocDoc (health appointments), Amazon (shopping), FreshDirect (grocery delivery), etc.
- Identify effective existing apps that can be integrated into the program, such as Uber (transportation), Spotify (music), Hue lights (environment), Mint (finances), and Habitica (scheduling)
- Develop custom apps and/or mobile websites as necessary, such as a master app for Village information (map, schedule of activities, services offered, etc.), custom local transportation app, etc.
- Develop a strategy for providing smartphone, computer, and wifi access to all residents (whether communal or individual)

#### **Program Design**

- Develop full program of support services
- Develop social activity programming
- Identify staffing needs, develop staffing guidelines and training program
- Identify volunteer opportunities, develop volunteer guidelines and training program
- Develop plan for building community partnerships, both through volunteering at a Hub and opportunities outside
- Develop strategy for integration of Neighborhoods through social activities, transportation, etc.

#### **Phasing/Scaling Strategy**

- Identify initial Community for development
- Develop single Neighborhood (Hub and Homes) as prototype
- Expand to development of other Neighborhoods in same Community
- Expand to development in other Communities

### **About the Designers**

**Ania Wagner** is an environmental experience designer who focuses on the intersection of interactive technology and architectural design, from corporate spaces to community-centered projects, cultural institutions, and healthcare. Her multidisciplinary background has given her a unique approach to design, believing that good design comes from smart collaboration and should be accessible to everyone.

**Debra Everett-Lane** is a content designer and educator who specializes in the design of activities, programs, curricula, exhibits, games, and more. Her approach combines the idea of “meet me where I am” (know your audience’s needs and limits) with the aspiration of “take me where I want to go” (design for your audience’s hopes and goals).

Ania and Debra currently work as full-time designers at ESI Design. They have worked together on several projects, including the concept design for a healthcare innovation center for the Baylor Scott & White healthcare system (Dallas), and developing a master plan and redesigned educational materials for City Health Works, a diabetes education organization (New York).