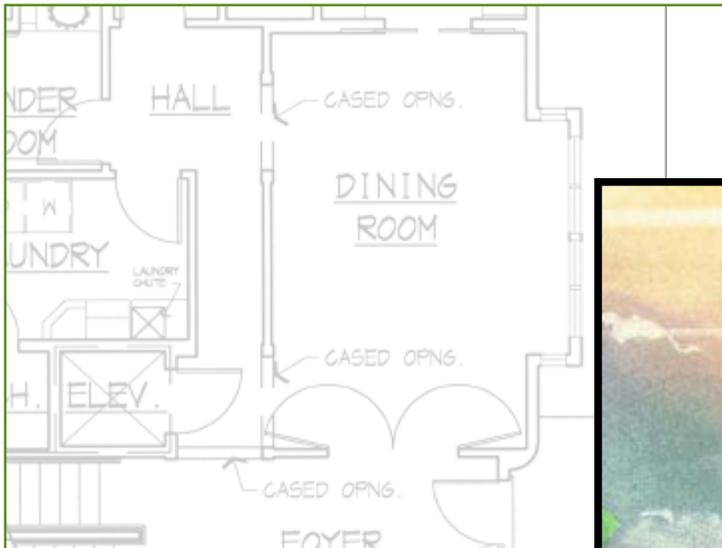
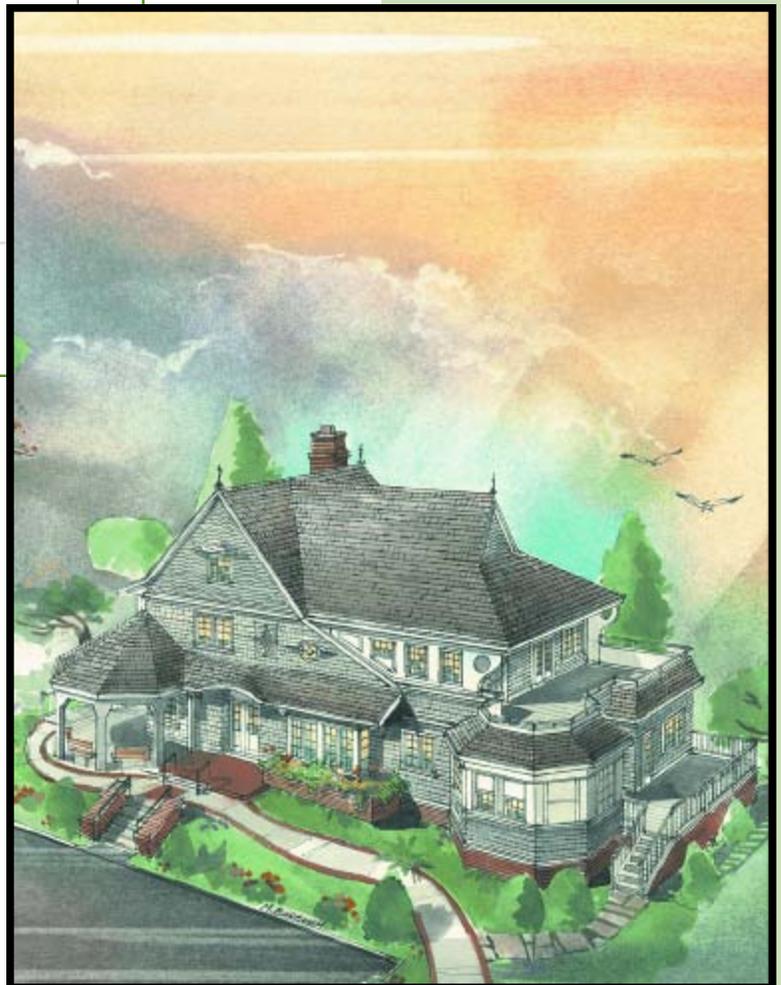


UNIVERSAL DESIGN

DEMONSTRATION HOME



Design for a Lifetime



The Casino Reinvestment Development Authority
1014 Atlantic Avenue
Atlantic City, New Jersey 08401

Welcome To the Universal Design Demonstration Home Atlantic City, New Jersey

Universal Design is a concept important to us all, young and old. It allows us to live our lives where we want to be—at home with our families, no matter what our age or ability. We at the CRDA are proud to be a part of this unique project to demonstrate Universal Design concepts. Our goal is to help to usher in new concepts in residential design that will benefit families and communities in Atlantic City and beyond. To all who have participated in the construction of this very special home: to our colleagues, our partners, and especially to our contributors, thank you for your efforts to improve the lives we live.

Edward Gant, Chairman
Casino Reinvestment Development Authority

Universal Design Demonstration Home

The Casino Reinvestment Development Authority (CRDA) has invested in an important multi-faceted community wide development initiative, the Universal Design Homes Project, in partnership with AARP and the Center for Universal Design at NC State University. In its commitment to demonstrate the importance of Universal Design in both new construction and remodeling, the CRDA has funded the design and construction of a Universal Design Demonstration Home in Atlantic City to showcase affordable new construction and practical universal design features which may be incorporated into all new construction and home remodeling/renovation projects.

The Universal Design Demonstration Home was designed by the Atlantic City architectural firm of Sykes O'Connor Salerno Hazaveh.

The Universal Design Demonstration Home will have three distinctly different purposes in Atlantic City:

- As a demonstration home open for tours during May 2002
- As the Show House at the Shore, an interior design exposition and fundraiser for the Ruth Newman Shapiro Cancer & Heart Fund, in July and August of 2002
- As its permanent purpose, home to Gilda's Club South Jersey, a community facility for cancer support services, opening in November 2002

AARP will produce video documentation of the Universal Design Demonstration Home and will utilize its media resources to showcase the special features of this house to educate consumers, builders, and other housing and related professionals.

What is Universal Design?

Universal design is a philosophy of design that recognizes, and attempts to accommodate the broadest possible spectrum of human ability in the design of all products and environments. It requires sensitivity to, and knowledge about people of all ages and abilities. Sometimes referred to as "lifespan design" or "transgenerational design," it encompasses and goes beyond the accessible, adaptable, and barrier-free design concepts of the past. Universal design helps eliminate the need for special features and spaces for "special people" (for example, people with disabilities) which are often different-looking, more expensive and can be stigmatizing. Universal design is about ability, rather than disability. It encompasses designs for the full human life cycle, from beginning to end.

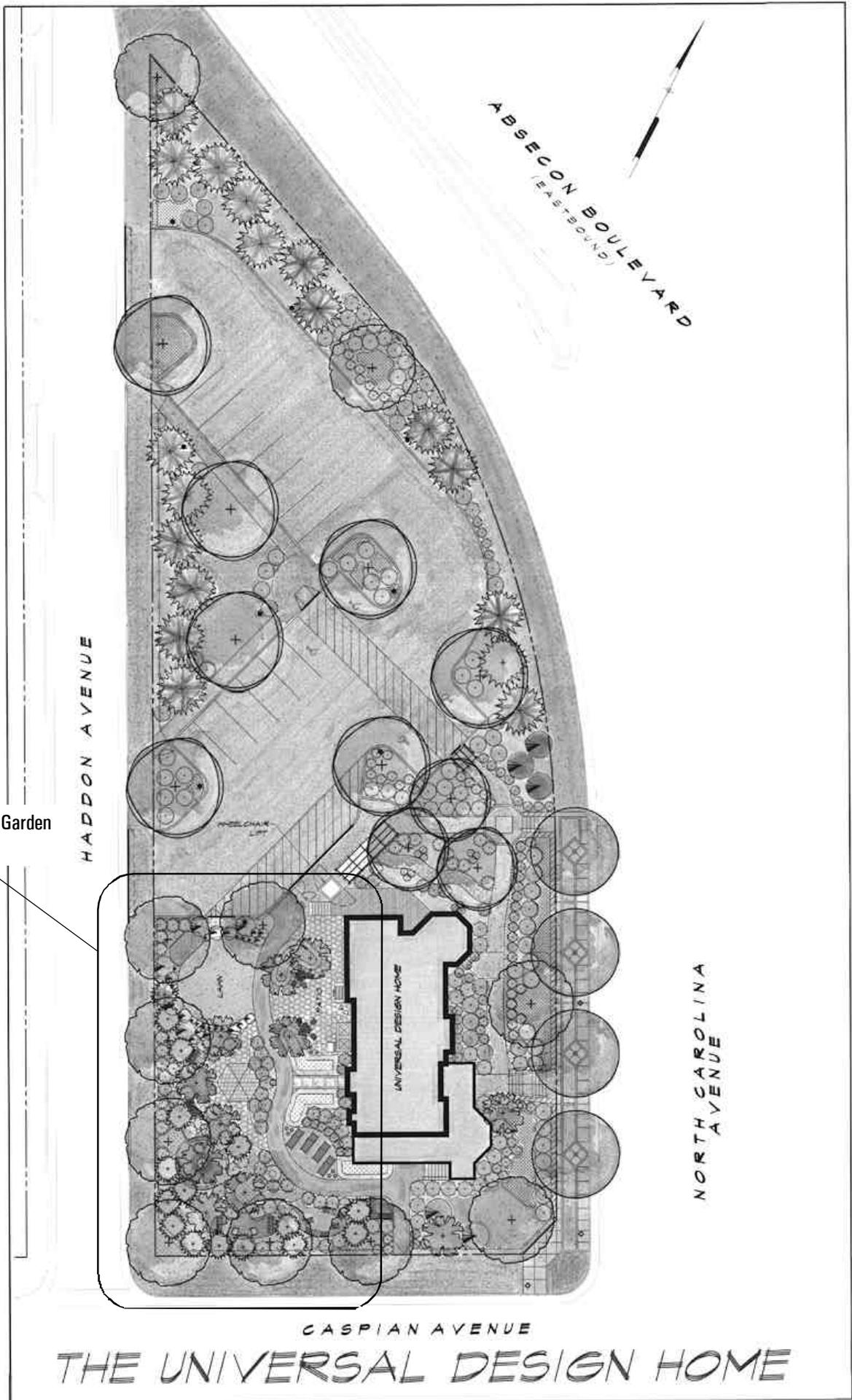
Overview of Features and Amenities

- Custom designed shingle-style 3,500 sq. ft. residence
- Smooth, stepless entries for ease of access
- Covered porches for outdoor recreation
- Wider doors and hallways, with easy-to-grasp, functional hardware
- Convenient, flexible kitchen designs with sitting workspaces, specialized cabinets and appliances
- Bathrooms designed for maximum usability, including curbless showers
- Home elevator and chair lift installations
- Healing Garden designed for children and adults

Visiting the Universal Design Demonstration Home

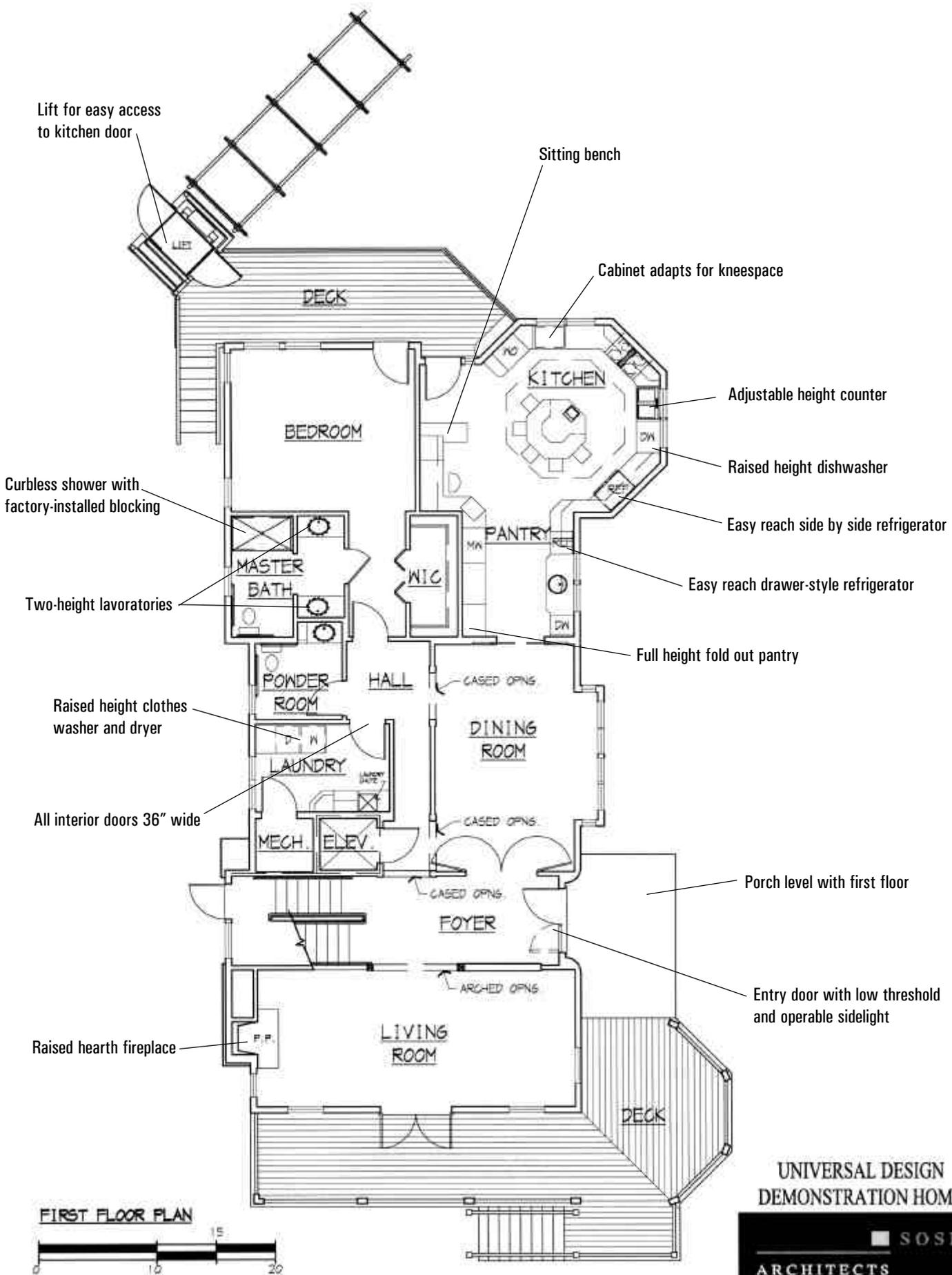
Visits will be possible for individuals, as well as groups, who make arrangements in advance for viewing, tours, and meetings during May 2002. The RNS Cancer & Heart Fund Designer Show House at the Shore will also be open to the public during July and August of 2002. Important audiences for the Universal Design Demonstration Home include all households, particularly those with older or disabled members. Families with young children considering a new home or a renovation will also be particularly interested in the features and products in this house. Interested disciplines include representatives from the housing and design industry, the disabilities community, the health care system, and the aging network, and faculty, teachers and students in these respective fields.

For more information about the Demonstration Home, contact Adrienne Hamilton, Director of Construction, Casino Reinvestment Development Authority, 609-347-0500.



Enlarged Healing Garden
See page 13

THE UNIVERSAL DESIGN HOME



Lift for easy access to kitchen door

Sitting bench

Cabinet adapts for kneespace

Adjustable height counter

Raised height dishwasher

Easy reach side by side refrigerator

Easy reach drawer-style refrigerator

Full height fold out pantry

Porch level with first floor

Entry door with low threshold and operable sidelight

Curbless shower with factory-installed blocking

Two-height laboratories

Raised height clothes washer and dryer

All interior doors 36" wide

Raised hearth fireplace

DECK

BEDROOM

KITCHEN

MASTER BATH

PANTRY

POWDER ROOM

HALL

DINING ROOM

LAUNDRY

MECH. ELEV.

FOYER

LIVING ROOM

DECK

CASED OPNS

CASED OPNS

CASED OPNS

ARCHED OPNS

LIFT

STAIRS

WIC

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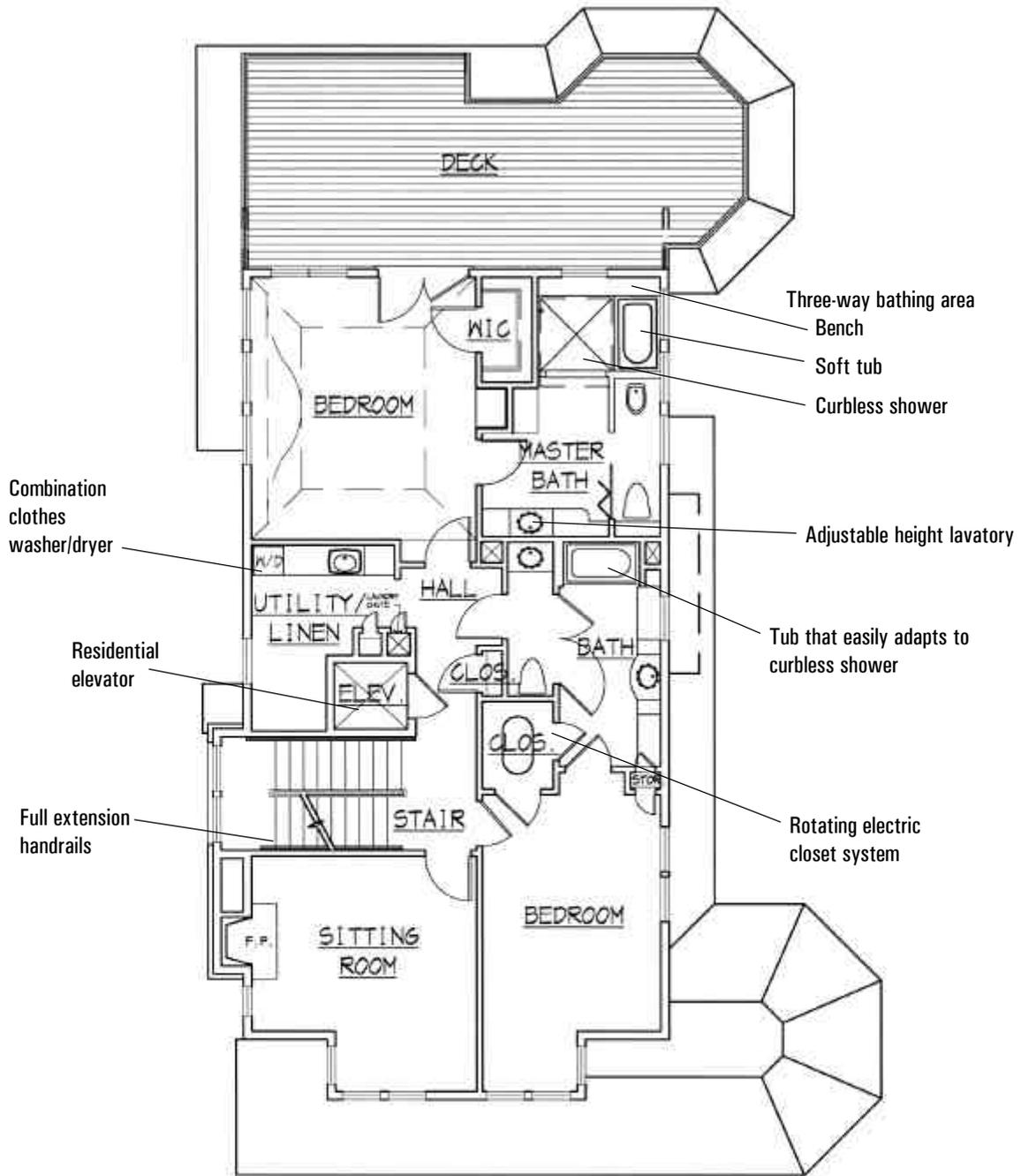
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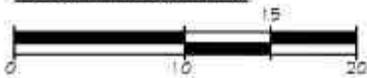
F.P.

STAIRS

STAIRS



SECOND FLOOR PLAN



UNIVERSAL DESIGN
DEMONSTRATION HOME

■ S O S H
ARCHITECTS

Universal Design in Housing

Universal design in housing applies universal design principles to all spaces, features, and aspects of houses, and creates homes that are usable by and marketable to people of all ages and abilities. Some features of universally designed homes are adjustable to meet particular needs, or needs that change as family members age, yet allow the home to remain marketable. Universal design has the unique quality that when done well, it is invisible.

The CRDA's Universal Design Demonstration Home shows how to build universal housing that can be enjoyed by everyone, but will significantly benefit a growing number of households: older households or households with a disabled family member. Because this group will continue to grow for the next 50 years, builders need to include universal features to keep pace with this changing customer base.

Fortunately, the features that benefit these households also benefit everyone. All of us can appreciate smooth, stepless entries, covered porches, wider doors and hallways, and convenient storage and appliances. The house also demonstrates convenient and flexible kitchen and bathroom designs, including such features as sitting workspaces and curbless showers. The Universal Design Demonstration Home will have home automation as well as simple features such as a package shelf to ease entry with arms full of packages. The 3,500 square foot home will showcase a range of universal design features that homeowners can incorporate into new homes and renovation projects. The home will also contain architectural products, appliances, and fixtures that add convenience, ease-of-use, safety, and extra value to homes.

Universal Design Demonstration Home: Universal Features

EXTERIOR

Site

- Accessible parking spaces connect to convenient routes of travel. The accessible parking spaces have an access aisle to help people who use mobility devices in enter and exit their vehicles. Some spaces accommodate larger van lifts.
- Safe gently sloping walks at 1:20 maximum slope to provide a stepless route from parking to house and through site.
- Benches for resting along route with places to park strollers and mobility devices such as wheelchairs and scooters.
- The Healing Garden offers a natural setting where those with cancer and their family and friends can meet and relax in a safe, peaceful, caring environment. The Garden is universally designed to accommodate the needs of users of all ages and abilities. For a more detailed discussion, please turn to the garden tour at the end of the booklet.

Stepless Entrances

- The deck is level with the house floor, making it possible for everyone to enter the house easily.
- A one-half inch maximum rise at entrance thresholds is easier for rolling and prevents tripping.
- Door sidelights allow a view of visitors for all, including children and seated users.
- The porch roof provides weather protection while unlocking and opening doors.
- A 5' x 5' level clear space inside and outside of entry door makes it possible to maneuver while opening or closing door.
- General illumination at entry doors for seeing visitors at night.
- The front door features an extra hinged leaf that can be opened for moving larger items.

Kitchen Entrance

- A vertical platform lift offers another accessible route into the house, a good alternative for those with low stamina or carrying/pushing heavy loads.
- A power door operator has been installed to ease passage for those who can't easily operate standard door hardware and those who are carrying items.

GENERAL

Interior Circulation

- One bedroom and an accessible bathroom are located on the entry level along with other major living spaces, making stair climbing less necessary.
- A 32" clear opening door width (using 36" wide doors) for all doorways makes maneuvering easier for those with equipment (carriages, strollers, walkers, wheelchairs)...and movers too!
- Doors have easy-to-use lever handles.
- Clear floor space (18" minimum) beside door on pull side at latch jamb provides space to move out of the way of the door swing when pulling it open.
- Circulation route (42" recommended minimum width) provides maneuvering room in the hallways and archways.
- Turning space in all rooms (5' diameter) enhances usability and safety.

Vertical Circulation

- A residential elevator provides easy access to the second floor. A less expensive alternative in new home planning would be to provide stacked closets for later installation of an elevator, if needed.
- The stairway includes several features to improve safety and to assist those with balance or vision difficulties. Handrails extend horizontally beyond top and bottom risers and are mounted on both sides of stairs. Treads and risers visually contrast with one another and have additional lighting.

Bathrooms

The house provides a range of accessible bathroom layouts. Some have a high level of access; others have features that can be adapted when needed or preferred.

General Bathroom Features

- Grab bars match décor colors to enhance a homelike feel.
- Adequate maneuvering space: 60" diameter turning space in each room and 30" x 48" clear floor spaces at each fixture.
- Clear space (3') in front of toilets allows for easy maneuvering.
- Each toilet is centered 18" from a side wall so that grab bars can be within easy reach.
- Broad blocking in walls around toilet, tub, and shower allows for future placement and relocation of grab bars, while assuring adequate load-bearing and eliminates the need to open up walls to add blocking later.
- Knee space under lavatory allows seated use of lavatory. Several methods are used to provide knee space, including open knee space without a vanity cabinet, or adaptable solutions such as fold-back or self-storing doors. Pipe protection is provided to prevent contact with hot or sharp surfaces.
- Mirrors are placed to allow appropriate viewing from any height.

Fixture Controls

- Offset controls in tub/shower, with adjacent clear floor space, allows for easy access from outside the tub.
- Single-lever, or other easy to use water controls, at all plumbing fixtures and faucets provides for use by those with limited hand strength or those with soapy hands.
- Mix valves with pressure balancing and hot water limiter prevents scalding those who cannot move out of the way if water temperature and/or pressure changes suddenly.

- Hand-held shower heads in all tubs and showers, in addition to fixed heads, if provided. Adjustable height, movable hand-held shower head on 60" flexible hose allows easy use by people of all heights.

Storage

- Adjustable height closet rods and shelves allow for flexibility of storage options.
- Power operated clothing carousel brings stored items within easy reach.

Hardware

- Easy to use, requiring little or no strength and flexibility.
- Lever door handles.
- Loop handle pulls on drawers and cabinet doors—no knobs.

Windows

- Power operators for windows in several difficult to reach locations including over the main kitchen sink and a high window in bedroom.
- Many windows for viewing have a 20" - 36" maximum sill height offering sight lines from lower and seated positions.
- Crank operated windows are easier to use than standard double hung windows.

Home Automation

- Remote controls for selected lights make it easier to control lighting.
- Audible and visual alarms for smoke detectors ensure that all will be aware of emergencies.
- Remote controls, motion sensitive controls, video security routed into televisions sets, and intercom door bell from remote telephone locations which improve safety and convenience.

Switches and Controls

- Light switches mounted at 36" - 44" above floor, and thermostats recommended at maximum 48" height.
- Easy-touch rocker switches are simple to use with limited hand strength and if arms are full of items.
- Additional electrical outlets at bed locations and desk for equipment, four-plex boxes each side for computer and electronic equipment, as well as personal use equipment.
- Electrical outlets, installed 18" - 24" above the floor, allow easy reach from a sitting position as well as for those who have trouble bending over.

Additional Items

- Special folding door hardware which allows bi-fold closet doors to swing back 180 degrees out of way after being folded up.
- Whole house vacuum to add ease to cleaning maintenance, no need to drag heavy vacuum cleaners around house.
- Visual signal strobes on fire alarms for people with limited or no hearing.

FIRST FLOOR

1st Floor Half Bath

- Lavatory is recessed in an alcove to allow access to the side of the toilet. This provides extra clear floor space for maneuvering.
- Shallow sink with offset rear located drain facilitates ample knee space under fixture.
- Toilet with higher seat is more comfortable for many users.

1st Floor Master Bath

- Compartmentalized design can be used by more than one person at a time.
- Lavatories at different heights, 30" and 36", accommodate a range of user heights.
- Curbless shower with fold-down seat accommodates those who need a shower chair, those who prefer to sit while bathing, and standing users.
- Combination toilet/bidet fixture accommodates everyone's hygiene needs.

Kitchen

- At least 3'-4" minimum space in kitchen for maneuvering, including enough floor area to use a mobility device at main sink.
- Clear knee space under sink (27" high minimum) allows use of the sink from a seated position. This is achieved by means of a variety of adaptable base cabinets, including swinging sliding, fold-back, self-storing cabinet doors, rolling carts, and removable shelves. Pipe protection panels must be provided at sinks to prevent contact with hot or sharp surfaces.
- Motorized and manually adjustable counter segments and several different fixed height counter top areas give work options for a variety of tasks to people of all heights, those with back trouble, people who are seated, and/or children.

- Contrasting color border treatment on counter tops. Color or contrast difference allows easy recognition of the edges of counters and the different heights to prevent accidental spills.
- Stretches of continuous counter tops for easy sliding of heavy items, particularly between refrigerator, sink, and stove top, for easy one-level food flow.
- Full-extension, pullout drawers, shelves and racks in base cabinets for easy reach to all storage space.
- Pantry storage with easy access pullout and/or adjustable height shelves for easy reaching of otherwise hard-to-get items.
- Front mounted controls with clear labels that contrast with adjacent surfaces on appliances to facilitate easy use and reach.
- Glare-free task lighting to illuminate work areas without harsh reflectivity.
- Side-by-side refrigerator allows easy reach of otherwise hard-to-get items, particularly if pullout shelving is provided.
- Under counter drawer type refrigerators to provide additional convenient access to refrigerated storage space.
- Built-in wall oven with adjustable counter top and adaptable base cabinet for knee space place beside it and set for one pullout oven rack at conventional counter top.
- Cook top or range with staggered burners and front mounted controls to eliminate dangerous reaching over hot burners.
- Drop in cook top with space underneath adaptable to a knee space by removing pullout shelves.
- Dishwasher raised on a platform puts bottom racks within easy reach requiring less bending.
- Lever water controls at all plumbing fixtures and faucets can be used with a closed fist or with soapy hands.

1st Floor Laundry

- Front-loading washer and dryer with front mounted controls raised on a 12" high platform reduces the need for bending and stooping while getting items in and out.
- Floor sink to facilitate routine maintenance chores.
- Extra counter space provides convenience for laundry activities.

SECOND FLOOR

2nd Floor Master Bath

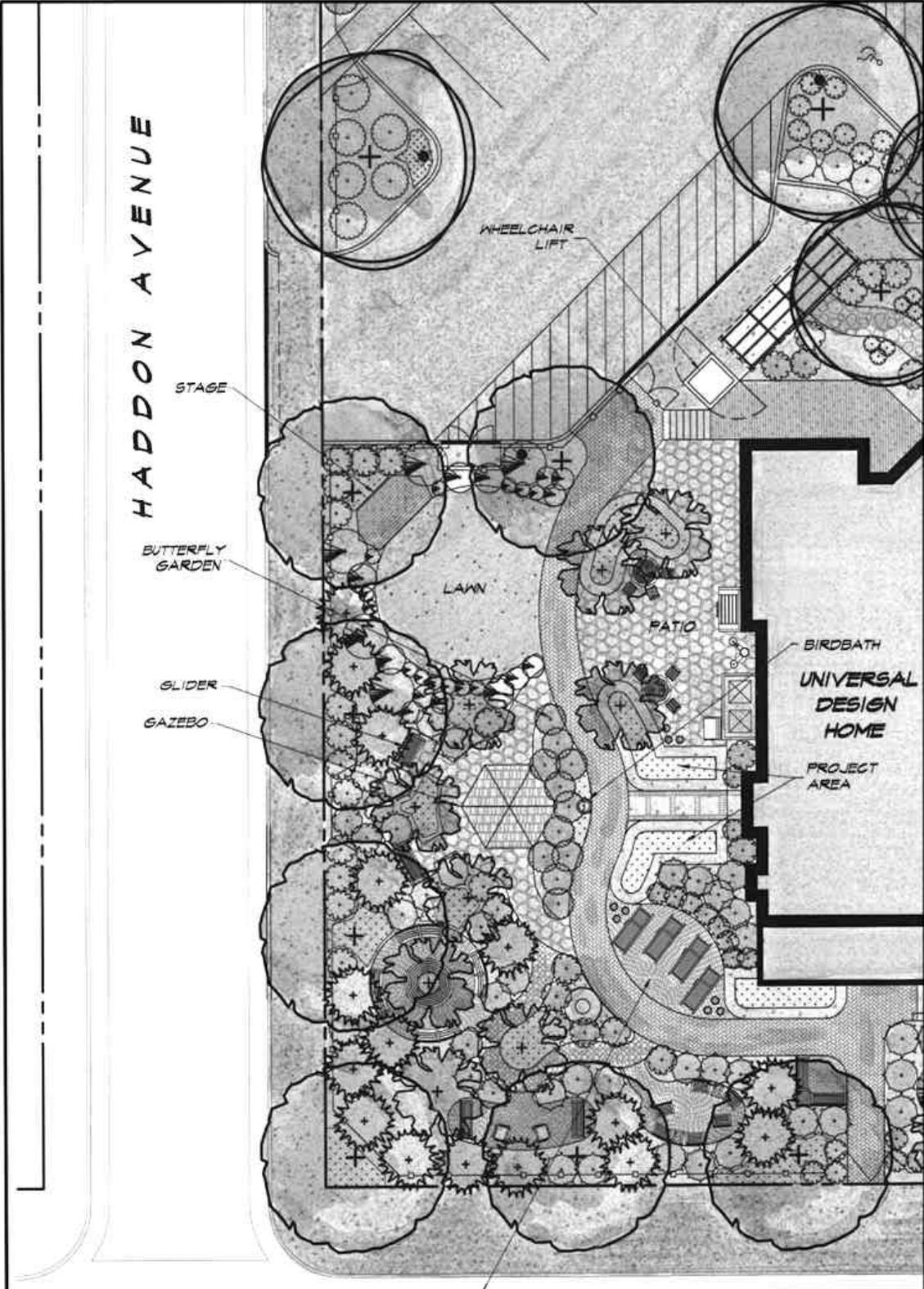
- A “three way bathing” space which can be used standing, seated on a bench, or while using a shower chair. This tub includes a soft cushioned surface to improve comfort and safety.
- A sink counter that can mechanically adjusted to a large range of preferred heights.
- The bidet fixture provides additional personal hygiene options.
- A movable screen could provide privacy for toilet but can be moved if clear floor space is needed next to fixture.
- Layout contains space for furniture options or extra clear floor space.

2nd Floor Compartmentalized Bath

- Full-length mirrors allow viewing at any height.
- Tub/shower fixture that is manufactured to be adaptable to a roll-in shower by removing tub portion.
- Toilet has double doors, one active, one temporarily fixed, which allows space to be opened up if additional maneuvering space around toilet is needed. Change can be temporary as needed, or doors can be removed for long term use.
- Wall hung lavatory with integral handholds and pipe protection provides support while standing and knee protection if seated.

2nd Floor Laundry/Craft Room

- Front-loading combination washer and dryer with front mounted controls on raised a platform reduces the need for bending and stooping. Single unit eliminates the need to move clothes from washer to dryer.
- Clothes chute to downstairs laundry room adds convenience, and reduces the need to carry large loads down stairs.



THE UNIVERSAL DESIGN HOME
HEALING GARDEN

THE REGENERATIVE POWER OF NATURE

A Walk Through the Garden

Gilda's Healing Garden offers a unique, restorative extension of the cancer support community facility provided by Gilda's Club South Jersey. The Healing Garden offers a natural setting where those with cancer, their families, and friends can meet and relax in a safe, peaceful, natural environment. The Healing Garden, based upon universal design principles, will accommodate the needs of users of all ages and abilities.

From the curbside arrival point, visitors can move straight ahead and enter through the welcoming, decorative gates into Gilda's Healing Garden. Entry through the decorative gates to the main path brings visitors to the patio, grill, and lawn where, weather permitting, social gatherings, celebrations, monthly suppers, and the many special events organized by Gilda's Club can be enjoyed. Raised planters provide sitting walls and enclose a space large enough for a group of people to enjoy delicious cookouts. Circular tables and chairs provide additional seating. For large parties, the lawn provides additional space to gather.

On the far side of the lawn, the stage provides a place for outdoor presentations and performances such as children's skits and musical accompaniments. The stage is designed as a low wooden platform with a lattice backdrop entwined with flowering vines. It conveniently serves as an additional activity station or gathering space.

The lawn is separated from the main garden by a seashore grass border that provides a year-round diversion for all. Visitors stroll along the highly sensory landscape, touching the grasses or listening to the natural sounds of the breezes rustling through the grasses, enjoying the calming effect of the plants' graceful movements. It creates an environment for quiet contemplation.

The main path continues and invites visitors into the heart of the garden and the many choices awaiting them. Gliders offer soothing movement and vantage points for appreciating the surrounding perennial beds.

On the other side of the path, the sunning area provides an opportunity to stretch and relax in comfortable chaise lounges to read a book or doze in the warm sun. Umbrellas are available for protection from strong sunlight.

The pavilion provides a social hub in the center of the garden. The enclosed, gazebo-like structure offers visitors an all-weather retreat for informal social interaction and refreshments. In summer, generous windows open up to the wafting fragrances and rich colors of the perennial beds. In colder, windy seasons, the enclosed pavilion allows visitors to stay warm and dry, and at the same time feel immersed in the middle of the garden. Benches and a small table offer support for social activities and leisurely observation of the adjacent butterfly garden.

A secondary path of crushed sea shells brings visitors to three private outdoor meeting spaces in the garden. Small groups of up to six people can meet in the circle. The surrounding vegetation acts as a natural screen and provides a sense of privacy. Support Groups enjoy the quiet ambience of this area where they can feel the regenerative power of nature.

Smaller groups of two or three people usually gather in the rectangle, a calm, secluded spot for social activities or meditation. The background sound of a water feature offers murmuring company to individual thought. Sculpture and ephemeral art objects add richness and interest.

The main path leads to the proposed sculpture garden on the southeast side. The rest of the garden can be viewed from here. It is a good place for family meetings where members can enjoy the diversion of the artwork, each in its own space, and in the context of the larger garden.

On the opposite side of the main path, the project area is devoted to gardening and plant related projects such as flower arrangements, wreath making, and pot planting. Raised planters facilitate inclusion of wheelchair users in the garden activities.

Beyond the sculpture garden and project area, the main path turns sharply to the southeast back entrance to the garden, furnished with benches and welcoming planters.

Club members know that every visit to the Healing Garden is a moment of new discovery and surprise. The constant change of the garden entices members to return to their faithful, welcoming friend who always has something new to offer. Every season also speaks for itself, with the predictable and reassuring cycles of nature. Visitors praise the trees, shrubs, and flowers; they, in return, offer constant replenishment of centeredness, hope, and healing.

Tour Information

Individuals or groups can schedule a visit or hold a meeting at the Universal Design Demonstration Home in Atlantic City. Health care professionals, builders, designers, architects, and others interested in the concepts of universal design in homebuilding are encouraged to visit.

To schedule a tour or meeting, please contact:

Shirley Gash, RNS

Docent Chair

Telephone: 609-822-8070

Tours will be scheduled in order of receipt of request.

Universal Design Demonstration Home

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