

# Strategies for Providing Accessibility & Visitability for HOPE VI and Mixed Finance Homeownership

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*Prepared for*  
HUD's Office of  
Public Housing Investments  
Public and Indian Housing

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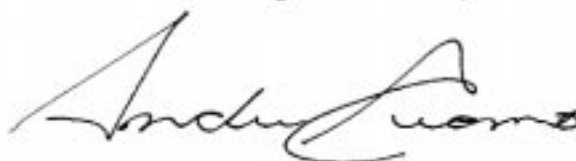
## Foreword

AT THE DEPARTMENT of Housing and Urban Development, we are deeply committed to creating communities that open doors of opportunity to all Americans—including those with disabilities. One of the ways we are demonstrating that commitment is by using HUD's HOPE VI program to develop mixed-income neighborhoods where accessibility is built-in to the physical design of the community.

Today, many for-sale and rental units that are fully accessible to people whose mobility is limited or who have difficulty seeing or hearing are being built by public housing authorities and their development partners. But for our communities to be truly inclusive, we must also work toward a modest—but universal—standard of access. To help reach that goal, HUD encourages HOPE VI grantees to ensure that as many units as possible have doorways and bathrooms which are "visitable" for people with disabilities.

HUD has worked with architects and advocates to develop design strategies that are both attractive and functional for families at any stage or condition of life. In this publication, you will see design features that are inexpensive and unobtrusive—in fact, many exist unnoticed inside a wall or in the design of a closet until the day when the reinforcement for a grab bar or the space for an elevator is needed.

Housing that is accessible, attractive, affordable, and which welcomes disabled and aging Americans is an integral part of the healthy, sustainable communities that HUD is working to create—in HOPE VI and other developments throughout our country.



Andrew Cuomo  
Secretary  
U.S. Department of Housing and Urban Development



“The HOPE VI program is committed to maximizing housing opportunities for individuals with disabilities. In this regard, we want to explore issues involved with developing for-sale housing that is both accessible to persons with disabilities and marketable to all.

Secretary Cuomo

## Introduction

the hope vi program calls for the transformation of public housing projects into mixed income, diverse and stable neighborhoods. The marketing challenge for such projects is to attract middle income persons to developments that include a wide range of income groups and housing types.

Experience to date indicates that new developments that resemble the most stable and admired traditional neighborhoods in a city have been the most successful. However, most traditional neighborhoods consist largely of two story houses often with raised front porches which have been a barrier to people with mobility impairments.

### The Challenge

The challenge is to develop innovative designs that typify the best qualities of traditional houses, through a physical form that can expand the inventory of accessible homeownership opportunities and provide visitability for as many homes as possible.

### An Approach: Both & And

Several approaches were identified in a working session among accessibility advocates, architects, developers and HUD officials. Instead of viewing the goals of providing accessibility and creating marketable homes as contradictory, these approaches explore design options that achieve both. Recent trends in market rate home developments helped identify some solutions.

## Three Options for Accessibility and Visitability

### Three Accessible Options

After thorough discussion, three options for the design of traditional, urban, and accessible housing have been determined as strategies:

- 1 The single-story house;
- 2 Condominiums/co-ops featuring first floor accessible flats;
- 3 Elevators or lifts installed in two-story houses.

### Visitability

The concept of visitability does not offer a completely accessible house, but rather the opportunity for a disabled person to visit the home of a friend without having to be lifted up stairs, to enjoy a meal and be able to use the first floor bathroom or powder room. The strategy of designing as many as possible HOPE VI houses to be visitable is encouraged.



Single-Story House

Accessible  
Route



Two-Story Semi-detached Unit with Lift

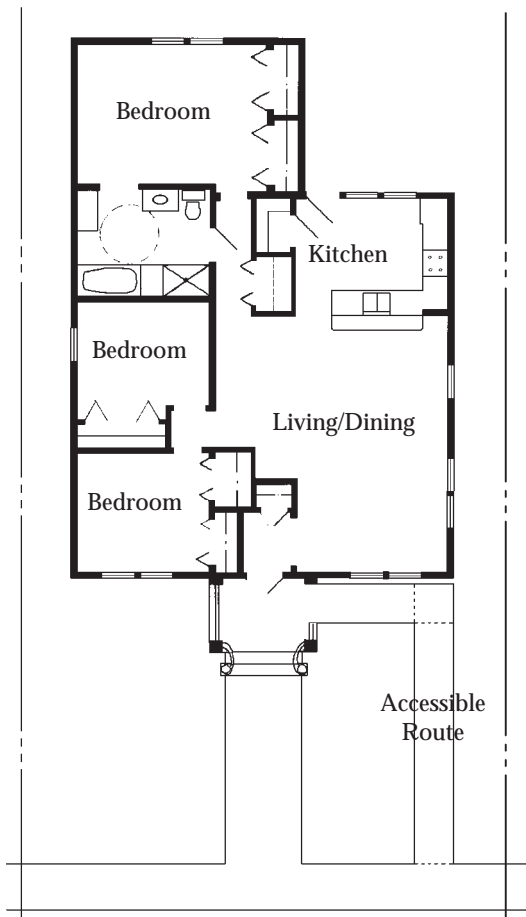


Stacked Flat

Accessible  
Route

Option 1

# The Single-Story House



the single-story house is the building type most easily made accessible. In developing new traditional neighborhoods in urban contexts, however, it has three planning and design difficulties:

- 1 By consuming more land, it results in a lower density which makes it less economic;
- 2 In some construction markets, it is more costly because of increased foundation and roof areas for the same amount of square footage as a two-story house;
- 3 In some urban context, it is an inappropriate building type which would call attention to its function as an accessible unit and compromise the development's ability to adhere to traditional neighborhood patterns.

Fortunately, however, in many cities with HOPE VI developments, there is a tradition of mixing one- and two-story houses and often a market preference for one-story and one-and-one-half-story houses.

In these cases, we recommend mixing house types in the HOPE VI developments to provide diversity and accessibility. These communities frequently have a market for one-story units among 'empty-nesters', young couples and disabled persons. All are important members of a diverse community. This approach responds to a market demand as well as providing accessible units and diverse housing opportunities.





**New  
Neighborhood  
Streets**

*In two Southern cities with traditions of bungalow houses mixed with two-story houses, these new streets provide accessible one-story houses in a traditional context. The one-story houses portrayed in this drawing are accessible.*



Accessible  
Accessible Route

Accessible Route



Visible

Option 3

# Condominiums and Cooperatives



an alternative in markets where condominiums and/or cooperative ownership is accepted is the stacked flat with accessible units on the first floor. Non-accessible flats or townhouses are on subsequent floors. 5

We recommend that the accessible unit have its own porch or terrace and exterior entrance in order to resemble as closely as possible a single family house.

To provide equitable opportunities within the marketplace, the HOPE VI developments that use this approach might consider offering a number of units beyond those required to meet accessibility standards. This strategy establishes a range of choices in the market and works toward reducing stigmatization.

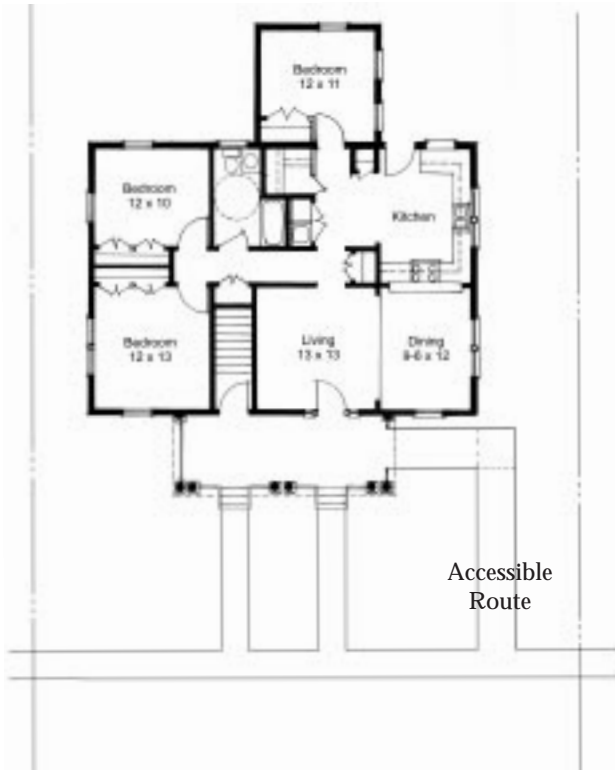
### The Stacked Flat

*The one bedroom stacked flat offers an accessible first floor both through a ramp from the street to the front door and through a rear entrance at grade.*



The design of these condominiums, cooperatives or owner-occupied rental buildings should respond to local architectural patterns and support the creation of a traditional neighborhood character. To do so, each unit should have its own entrance, porch or other open space amenity and the buildings should have good street frontage.

These units offer an accessible first floor unit with ramping to the front porch and the potential for a rear entry at grade with the second floor unit being non-accessible.



**3 Bedroom Duplex**  
*Architecturally, this two-unit apartment building has the same appearance as two townhouses. The ground floor unit is fully accessible with a ramp to the front porch and a non-accessible rental unit above.*







**Small Capitol Hill  
Townhouse**  
*Modeled after the earliest wood frame houses on Capitol Hill, these units are 24-foot wide, delineated on the facade as two 12-foot wide attached townhouses. The buildings contain a one-story, two bedroom, one bath unit over an accessible unit on the ground floor; also offered is a two bedroom unit with one bath.*

Second story unit entrance  
First story unit entrance - accessible



First story



Second story

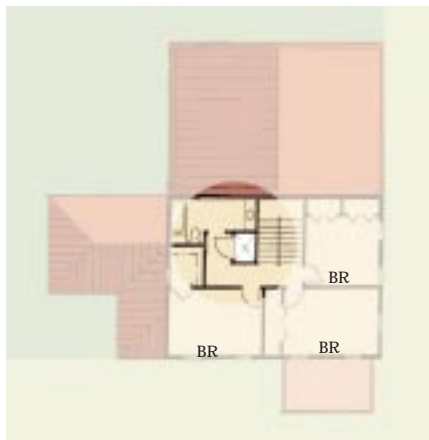
Option 4

## Two-Story Houses with Residential Elevators or Lifts

in many urban neighborhoods it is essential to 8  
build two- and three-story houses for effective and consis-  
tent urban design within existing neighborhood architecture.  
One way to make these houses fully accessible is through the  
use of private residential elevators or lifts.

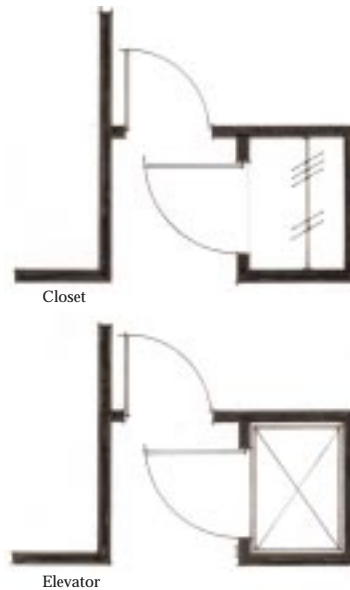
Recent developments in technology have dramatically  
lowered the cost of residential elevators and lifts. Examples  
of models available are indicated in the Appendix.





In market rate developments there is an increase in demand for units which provide homeowners with the option of adding a private residential elevator either at first occupancy or at a later date. The designs illustrated on this page indicate a walk-in closet on both the first and second floors with adequate dimensions to accommodate a private residential elevator.

By providing this option in HOPE VI homeownership developments, the outcome becomes the provision of a house which is currently desired by an upscale market and at the same time, accessible. If first-time buyers do not choose to have the elevator, it can easily be added later.





Three-Story Townhouse with Garage



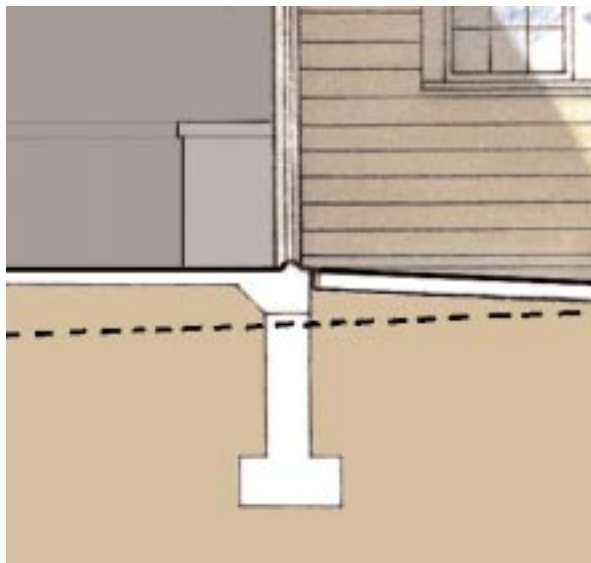
Three-Story Townhouse



## Visitability



*Cross section indicating raised slab construction with alignment of the accessible route indicated by the dotted line.*



*Detail of raised slab construction at accessible entrance*

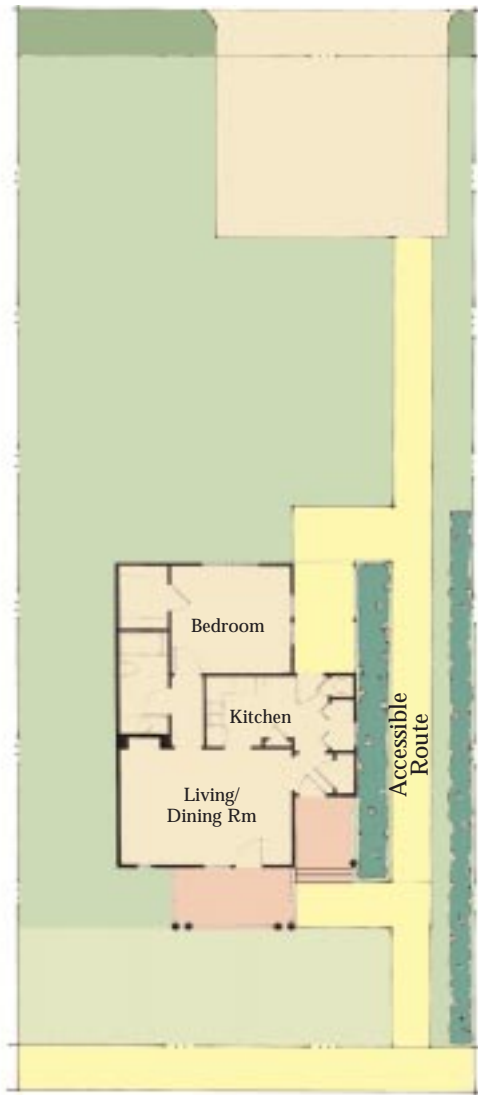
visitability is defined loosely as making it possible for a disabled person to visit a friend's home and enjoy a meal, without having to be lifted up a step or be unable to get through the doorway. Therefore, house designs should provide at least one level access at grade without a step at the threshold. 11

Visitability can be accomplished by using raised slab foundation construction. This allows the patio entrance at grade to be at the same elevation as the interior floor. It also makes it possible to have a sloped walk along the side of the house with its change in grade taken up along the side of the foundation wall.

The house should also have a bathroom on the ground floor that can be used by a disabled person. In those cases in which it is a small powder room, this can be accomplished by simply employing an outward opening door yielding a 32-inch clear passage space and path inside.

Visitability not only permits disabled persons to visit their neighbors but can allow currently physically-able persons to age comfortably in their homes without the need for extensive renovations and the necessity for ungainly add-on ramps if disability should occur as part of the normal aging process.





In traditional houses with raised front porches, we recommend three possible configurations for providing accessibility for visitors.

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- 1 When possible, provide a curved front sidewalk with a grade of no more than 5% to be used to access the side of the front porch.
- 2 Serve houses through alleys with parking in the rear yard. The grade of the site should enable the rear door to be level with the exterior grade. The accessible entrance door should allow 32 inches of clear passage. With such a system there develops a network of paths linking houses within the community. **In any given development, as many houses as possible should provide visitability.**
- 3 As indicated in the plan drawing, provide an accessible route along the side of the house.

These design methods also provide direct access between the kitchen/dining area and the patio or terrace, a feature that is very much in demand in many real estate markets. Both marketability and visitability are addressed and provided in these configurations.

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## Appendix: Legal Requirements

hope vi developments are subject to the accessibility requirements contained in several federal laws. All applicable laws must be read together and followed.

As recipients of federal financial assistance, developers of HOPE VI multi-family housing projects are covered by the new construction requirements contained in 24 CFR 8.22 of the regulations implementing Section 504 of the Rehabilitation Act of 1973. The regulations define multifamily development as any development which contains five or more units, whether attached or detached, and includes single-story and multi-story buildings. Section 8.22 specifies that a minimum of 5% of the total number of dwelling units (but not less than one) of any multifamily housing project constructed by a recipient of federal financial assistance shall comply with the physical accessibility requirements contained in the Uniform Federal Accessibility Standards. An additional 2% of the units (but not less than one unit) shall be accessible for persons with vision and hearing impairments.

Developers of multifamily dwellings (buildings containing four or more units) are also subject to the U.S. Fair Housing Act design and construction requirements. See 42 U.S.C. 3601 et seq., 24 CFR 100.200 et seq. The Fair Housing Act covers a wide range of housing including rental units, condominiums, and cooperatives but not detached single family homes or multistory townhouses. The Fair Housing Act (the Act) mandates that all covered multifamily dwellings designed and constructed for first occupancy after March 13, 1991, must contain specified features of accessible and adaptable design. 42 U.S.C. §3604(f)(3)(C).

The Americans with Disabilities Act (the ADA) also contains accessibility requirements, which have been incorporated in the Americans with Disabilities Act Standards for Accessible Design (ADA Standards), 28 C.F.R. Part 36, Appendix A (1999). The requirements of Title II of the ADA, which prohibits discrimination on the basis of disability by public entities, apply, in relevant part, to housing that is designed and constructed by a state or local governmental entity (including a public housing authority). 42 U.S.C. §§ 12131-12134. The requirements of Title III of the ADA, which prohibits discrimination by private owners or operators of public accommodations, apply, in relevant part, to commercial facilities and public accommodations in connection with housing. 42 U.S.C. §§ 12181-12189. For example, Title III applies to day care centers and other community facilities open to the public on the grounds of a public housing development.

For detailed information about the applicability of these laws, PHAs, developers, architects, and others should review PIH Notice 99-52, "Accessibility Notice: Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, the Architectural Barriers Act of 1968 and the Fair Housing Act of 1988." In addition, for technical guidance on the requirements of the Fair Housing Act, architects, developers, and others may wish to obtain a copy of HUD's Fair Housing Act Design Manual. This Manual is available through the HUD Website.

Hope VI projects may also be subject to state or local accessibility requirements.

## A Call for “Visibility”

By: Eleanor Smith,  
Concrete Change, Atlanta, Georgia

tremendous improvements in disability access 16  
have occurred since I was a child in the 1940's and 50's using a wheelchair from age three on. In earlier years, I wheeled down streets looking for a driveway to get on the sidewalk. Now, curb cuts at corners are common. In earlier years, I often waited outside while my friends ran up the steps into the store to buy a trinket or treat. Now, new stores offer the freedom to come and go.

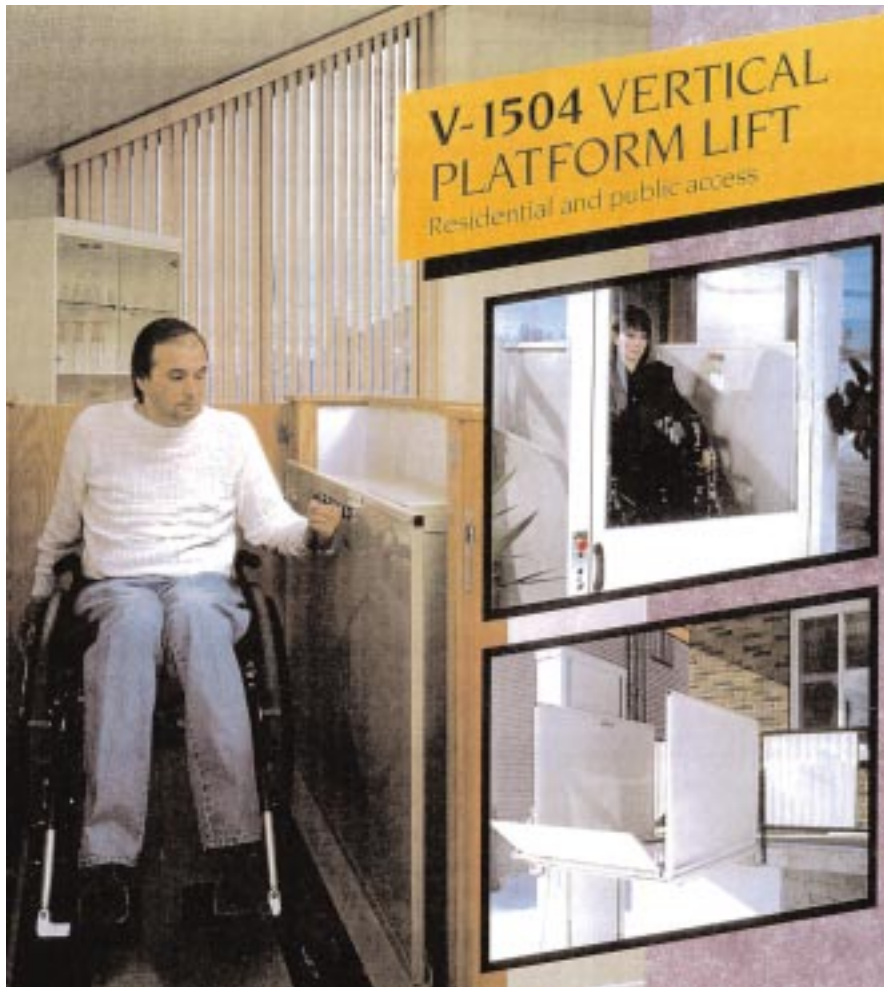
But one thing remains the same today as when I was a child. Homes still routinely isolate and segregate people with disabilities. Mobility-limited people often have trouble finding places to live, and we rarely can freely enter other people's homes to visit. We and our families are cut off from mingling in the community.

By incorporating two basic features, at least one zero step entrance and 32-inch clear interior passage doors, builders can dramatically change lives of people with mobility limitations. The neighbor can accept an invitation for a casual drop-in for coffee. The grandfather can take part in his grandchild's birthday celebration. People of all ages, with short-term or long-term disabilities can join the party, the meeting, the club, the rhythm of everyday contact with others.

It's feasible and it's time!



## Sample of Residential Elevator



**SAVARIA INTRODUCES THE 1504 VERTICAL PLATFORM LIFT, THE MOST ADVANCED LIFT ON THE MARKET. FOR THE FIRST TIME IN THE MARKET, IT IS POSSIBLE TO ACTUALLY TOUR THE SAME BUILDING WITH FOUR DIFFERENT PLATFORM CONFIGURATIONS.**

THE UNIQUE DRIVE AND PLATFORM COMBINATIONS ALLOW FORWARD DESIGN AND DATE OF INSTALLATION IN RESPECT TO ANY ARCHITECTURAL REQUIREMENTS.

ONLY TWO VERTICAL GUIDES, THE PLATFORM CAN BE INSTALLED IN A CORNER OR IN BOTH HORIZONTAL OR VERTICAL DIRECTIONS.

### VERTICAL PLATFORM LIFT MODEL V-1504 • GENERAL SPECIFICATIONS

STANDARD EQUIPMENT AVAILABLE ON ALL MODELS:		
• 700 lb (317 kg) capacity	• 2 1/2 chain hydraulic drive system	• Normal limit switch
• Maximum travel of 20' (7.00meters)**	• Castor type hydraulic pump	• Control buttons on platform**
• Travel speed: 21 feet/min (6.17 m/min) approx.	• Roller guide shoes	• Keyed call station
• 32" x 54" (813 x 1372 mm) steel platform dimensions	• 1.5 hp (1.119 kW) output	• Continuous pressure directional lockdown
• 12VDC battery operation (up and down direction)	• Automatic battery recharging system (115 VAC)	• 36" (914mm) high side guard panels
• Emergency battery lowering	• Combination mechanical lock and electric contacts in steel-to-steel***	• Foot guard on doors
• Emergency manual lowering valve	• Low voltage controls	• Non-slip platform surface
		• Beige acrylic urethane paint on all metal surfaces
		• No machine room required

OPTIONAL EQUIPMENT AVAILABLE:		
• 90" (2286 mm) capacity	• 90" exit	• Floor panel
• 11 VVAC operating (11 VVAC up direction and 12VDC down)	• Automatic access ramp*	• Fire rated electric strike
• Anti-crook system	• Stationary limit	• Modular Plexiglas enclosure
• Platform safety gate*	• Emergency light	• Plexiglas dome
• 54" x 54" (1372 x 1372 mm) steel platform dimensions	• Emergency stop button	• Telescopic enclosure
• Special platform dimension up to 13' (4.00 m) HGT***	• Emergency alarm	• Third Plexiglas wall
• Even / Odd same side	• Fit switch	• Portable unit package
	• Final Limit Switch	• Grab rail
	• Intermediate stops	• Stair bridge
	• Platform gate	• Flip-up seat
	• Top landing gate	• Removable self-standing base*
	• Open / Lower landing door	• 42" (1067mm) wide guard panels
	• 8" (203 mm) steel door and frame (11112 GLL 616-6168)	• Custom color
		• Public building packages conform to ADA 2010-08 and ANSI A117.1 part 307

### HYDRAULIC DRIVE SYSTEM

**OPEN RAIL**

Modular guide rail for easy and quick assembly

The hydraulic pump, the battery and the controller are all contained inside the guide rail

**ENCLOSED CAB**

### DIFFERENT PLATFORM CONFIGURATIONS

TELESCOPIC ENCLOSURE

SELF-STANDING PLATFORM

NO HOISTWAY REQUIRED

INTERIOR VERTICAL PLATFORM

PLEXIGLASS ENCLOSURE

RESIDENTIAL TELECAR

### TELECAR (No hoistway element)

INTERIOR DIMENSIONS	30" x 30" (762 x 762 mm)
EXTERIOR DIMENSIONS	32" x 34" (813 x 863 mm)
TIRAIL DIMENSIONS	30" x 6" (762 x 152 mm)
FLOOR OPENING	34" x 34" (863 x 863 mm)
OVERHEAD AT TOP LANDING	90" (2286 mm)
TELECAR DOOR	32" x 34" (813 x 863 mm)
CAPACITY	700 lb (317 kg)
TRAVEL	Two (2) landings (unobstructed travel)**
CAR ACCESS	Front only or front / back
WINDOWS	Plexiglas 1/4" in. min.
FINISH	Painted laminated steel 20 ga. 30.8 mm
APPLICATION	Residential
AVAILABLE EQUIPMENT	Telephone cabinet, floor lock, audible alarm, safety interquest sensor, beam presence detector above the cab.

### ENCLOSED CAB

INTERIOR DIMENSIONS	36" x 60" (914 x 1524 mm)
HOISTWAY DIMENSIONS FRONT & BACK OPENINGS	34" x 64.25" (863 x 1632 mm)
HOISTWAY DIMENSIONS FRONT ONLY	34" x 64" (863 x 1626 mm)
OVERHEAD AT TOP LANDING	90" (2286 mm)
PIE DEPTH	9" (227 mm)
CAPACITY	700 lb (317 kg)
TRAVEL	21' (7.00meters)**
CAR ACCESS	Front only, front / back or 36"
FINISH	Laminated plexiglas and stainless steel
APPLICATION	Residential and commercial
AVAILABLE EQUIPMENT ***	Telephone cabinet, floor sensor, car control station, hanging ceiling, car gate, speed of 28 ft/min (8.5 m/s), automatic controller, luxury hand and call finish.

\*\*\* Some options may require a deeper pit, a machine room and a 220 VAC operation.

\*\* Consult local codes and regulations.

\* Standard equipment on some models.

Residential SEARCH elevators