Accessible Routes

Participant Manual

FAIR HOUSING ACCESSIBILITY FIRST
Fair Housing Instruction, Resources, Support, Technical Guidance

Homes & Communities
U.S. Department of Housing and Urban Development

(888) 341-7781 (V/TTY) - Technical Guidance
www.FairHousingFIRST.org

EQUAL HOUSING OPPORTUNITY

2005-2006

Designed and Developed by:

The BearingPoint Team
for
U.S. Dept. of Housing and Urban Development
C-OPC-22667
October 2005

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Participant Manual
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Using the Participant Manual

Manual Layout and Content

As a participant in the course, the Participant Manual serves as your focal point. It follows the sequence of the class activities and discussion topics. It includes:

- All slides presented by the instructor
- Space for you to take notes
- Key points not contained on slides
- Detailed instructions for exercises
- Resources to supplement the curriculum

Fair Housing Accessibility FIRST
Accessible Routes

Welcome to Fair Housing Accessibility FIRST, a training and technical guidance program created by the U.S. Department of Housing and Urban Development (HUD).

This session is one hour and a half in length.

Fair Housing Accessibility FIRST

- ❑ Offer training and technical guidance on accessibility requirements of the Fair Housing Act
- ❑ Increase the supply of accessible multifamily housing units nationwide

Notes:

Fair Housing Accessibility FIRST

- Gathered opinions and ideas from over 850 stakeholders

Stakeholder Groups

- Builders
- Disability rights advocates
- Government officials
- Trade associations
- Property managers
- Media
- Code officials
- Enforcement agencies

Notes:

Fair Housing Accessibility FIRST

- Comprehensive training curriculum
- Technical guidance via a website and toll free hotline
  - 1-888-341-7781 V/TTY
  - www.FairHousingFIRST.org

Notes:

Accessible Routes Introduction

During this training session, we will discuss:

- Overview of the Fair Housing Act
- Overview of Requirements 1 and 2
- Requirement 1 and 2: Accessible Routes
- Site Impracticality
- Resources

Notes:

Accessible Routes Introduction

At the end of the session, you will:

- Be able to identify features and elements covered by the Fair Housing Accessibility Guidelines
- Be able to identify design and construction requirements for an accessible entrance on an accessible route
- Be able to describe site impracticality and application of the Individual Building Test and Site Analysis Test

Notes:

Name four personal learning goals for this session.

_____

_____

_____

_____

_____

_____

Goals should be:

Specific
Measurable
Achievable
Relevant
Timely

Example: I will learn three ways to design accessible routes that are in compliance with the Fair Housing Act.

Accessible Routes Introduction

- Small group exercises will be conducted to reinforce key concepts you have learned

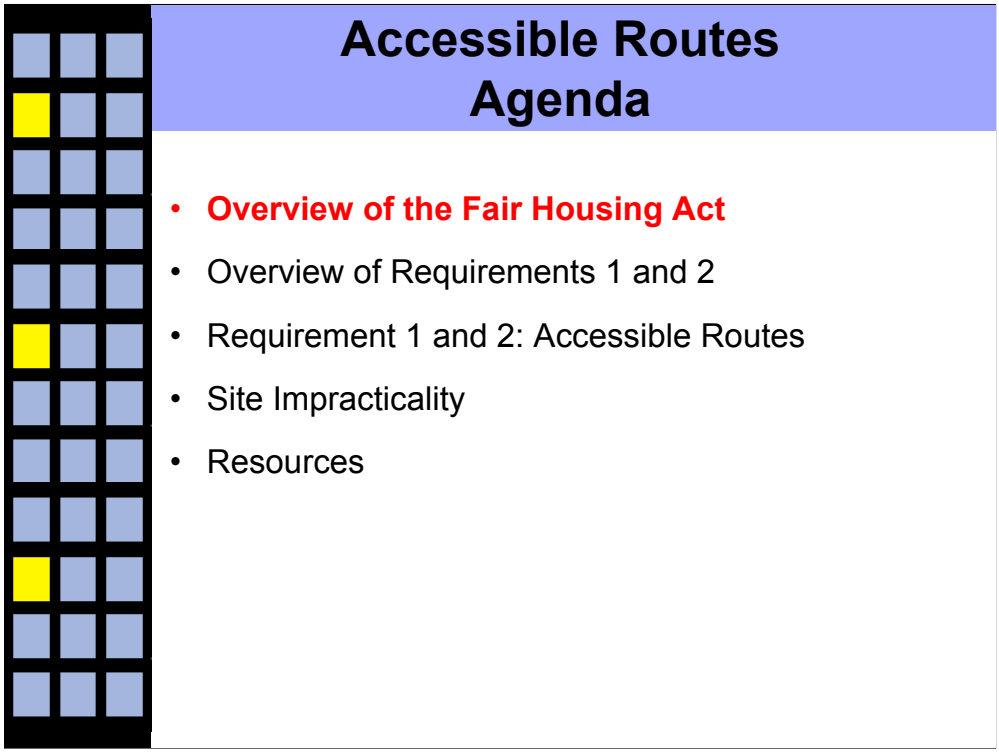
- You are encouraged to ask questions throughout the training session

- A questionnaire will be distributed to obtain your feedback on training content, delivery, and materials

Notes:

Who is in your small group?

What are their occupations?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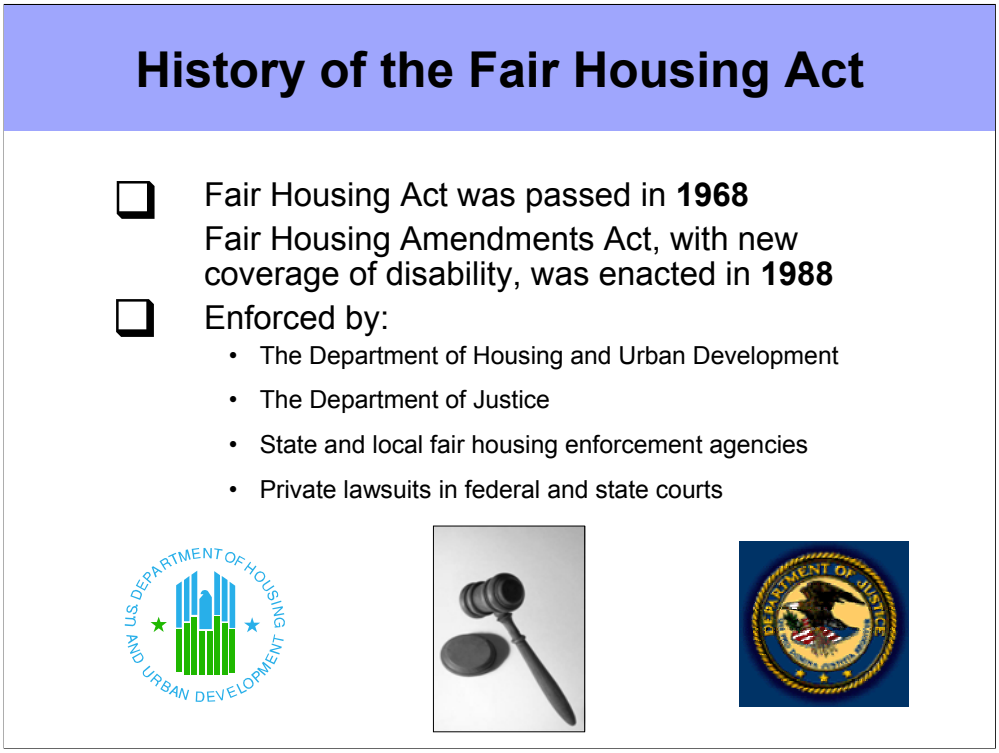


History of the Fair Housing Act

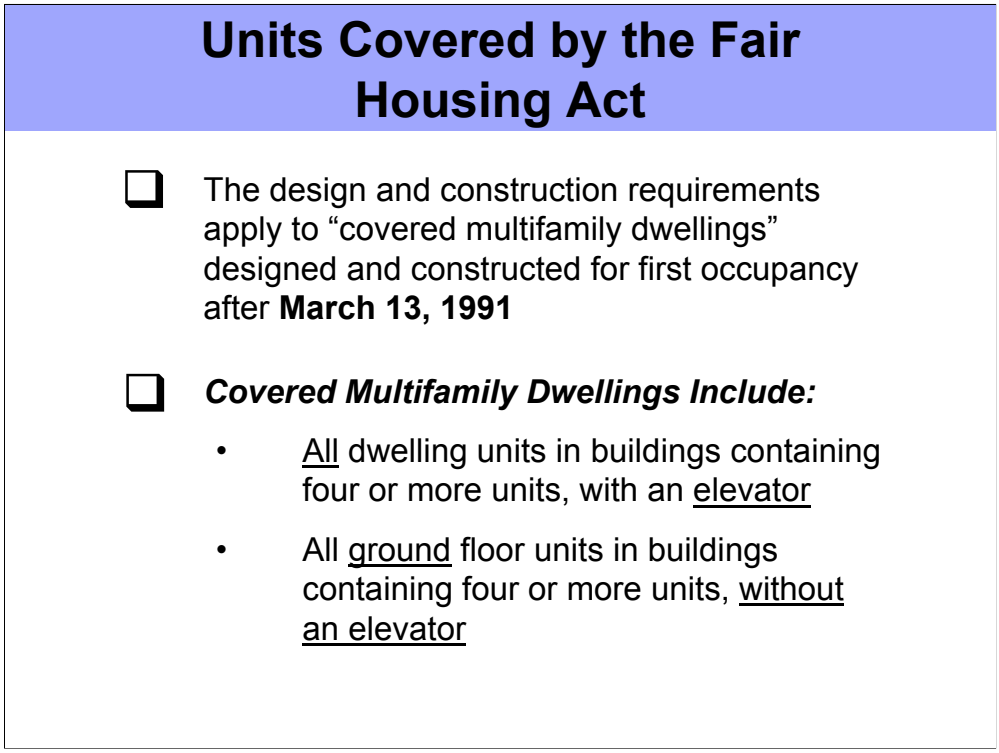
The Fair Housing Act was first passed in 1968, shortly after the assassination of Dr. Martin Luther King, and it prohibited discrimination based on race, color, religion and national origin. Discrimination based on sex was added in 1974. When the law was comprehensively amended in 1988, it was changed to include discrimination against people because of handicap and because of familial status—the presence of children under the age of 18. (During this training, we will refer to the Fair Housing Act's coverage of handicap discrimination as "disability" protections. "Disability" is the preferred term.)

The Fair Housing Act is enforced administratively by the U.S. Department of Housing and Urban Development (HUD). People who believe that they have been harmed by a violation of the Act may file administrative complaints with HUD, and HUD conducts an impartial investigation of the claims.

The Act also authorizes federal lawsuits by the U.S. Department of Justice, and private lawsuits that can be filed in federal or state courts by individuals. Many state and local fair housing enforcement agencies also have authority to investigate violations and bring enforcement actions. The general authority for all of these enforcement activities is found in the Fair Housing Act. So the enforcement authority given under the Act is quite broad.

History of the Fair Housing Act (continued)

Where violations of the law are established, remedies under the Fair Housing Act may include the award of compensatory damages to victims of discrimination, sometimes numbering in the hundreds of thousands of dollars, orders for comprehensive corrective action, and awards of punitive damages to victims or civil penalties to the government. In design and construction cases, remedies also may require retrofitting housing that has already been constructed to make it comply with the Act's design and construction requirements.



Units Covered by the Fair Housing Act

The Fair Housing Act design and construction requirements apply to "covered multifamily dwellings" designed and constructed "for first occupancy" after March 13, 1991.

A building was not designed or constructed for first occupancy if:

- It was occupied on or before March 13, 1991
- If the last building permit or renewal of a building permit was issued on or before June 15, 1990

Buildings where the last building permit was issued on or before June 15, 1990 are not covered by the design and construction requirements. Even if the last building permit was issued after June 15, 1990, if the building was occupied before March 13, 1991, it is not covered. HUD adopted these dates to allow time for the requirements to be considered during the design and construction phase of new properties.

The "first occupancy" language in the statute has been defined in HUD's Fair Housing Act regulations as "a building that has never before been used for any purpose." This means buildings that are rehabilitated are not covered by the design and construction requirements even if rehabilitation occurs after March 13, 1991 and even if it is substantial rehabilitation.

Units Covered by the Fair Housing Act (continued)

A dwelling unit includes:

- A single-family unit in buildings with four or more units
- An apartment
- A room in which people sleep even if they share kitchens or bathrooms, like transitional housing

The design and construction requirements apply to "covered multifamily dwellings." Covered multifamily dwellings are:

1. All dwelling units in buildings containing four or more dwelling units if the buildings have one or more elevators AND

2. All ground floor units in other buildings containing four or more units, without an elevator.

This includes housing that is for rental or for sale and applies whether the housing is privately or publicly funded.

Condominiums and apartment buildings are covered by the design and construction requirements. So are time-shares, dormitories, transitional housing, homeless shelters that are used as a residence, student housing, assisted living housing, and others.

Fair Housing Act – Seven Design and Construction Requirements

The Fair Housing Act's design and construction requirements are broken down into seven basic requirements.

1. Accessible building entrance on an accessible route
2. Accessible and usable public and common use areas
3. Usable doors
4. Accessible routes into and through covered unit
5. Light switches, electrical outlets, thermostats, and other environmental controls in accessible locations
6. Reinforced walls in bathrooms for later installation of grab bars
7. Usable kitchens and bathrooms

The requirements provide for a minimal level of accessibility. Congress, when it passed these requirements, said that it intended that the accessibility provisions of the Fair Housing Act would facilitate the ability of persons with disabilities to enjoy full use of their homes without imposing unreasonable requirements on homebuilders, landlords and residents without disabilities. Congress stated that compliance with these basic requirements would eliminate many of the barriers that discriminate against persons with disabilities in their attempts to have equal housing opportunities.

Fair Housing Act—Seven Design and Construction Requirements (continued)

The design and construction requirements were developed to provide access for people with different types of disabilities. Although some of the requirements focus on people who use wheelchairs, meeting the requirements will also meet the needs of many other people. People who can benefit from accessible features may include people with arthritis or sports injuries who have difficulty turning or gripping door hardware, people who use crutches, canes or walkers, people who because of age or illness have limited mobility or reach ranges, and even people who push strollers, carry groceries, or move furniture. People who have vision or hearing disabilities also benefit from a variety of provisions in the requirements.

Fair Housing Act – Seven Design and Construction Requirements (continued)

1. The first is that all covered multifamily dwellings must have ***at least one building entrance on an accessible route*** unless it is impractical to do so because of the terrain or unusual characteristics of the site.
    - An accessible route means a continuous, unobstructed path connecting accessible elements and spaces within a building or site that can be negotiated by a person with a disability who uses a wheelchair, and that is also safe for and usable by people with other disabilities.
    - An accessible entrance is a building entrance connected by an accessible route to public transit stops, accessible parking and passenger loading zones, or public streets and sidewalks.

2. The second requirement is that ***covered housing must have accessible and usable public and common use areas***. Public and common use areas cover all parts of the housing outside individual units. They include, for example: building-wide fire alarms, parking lots, storage areas, indoor and outdoor recreational areas, lobbies, mailrooms and mailboxes, and laundry areas.

3. The third requirement is that all ***doors that allow passage into and within all premises must be wide enough to allow passage by persons using wheelchairs***.

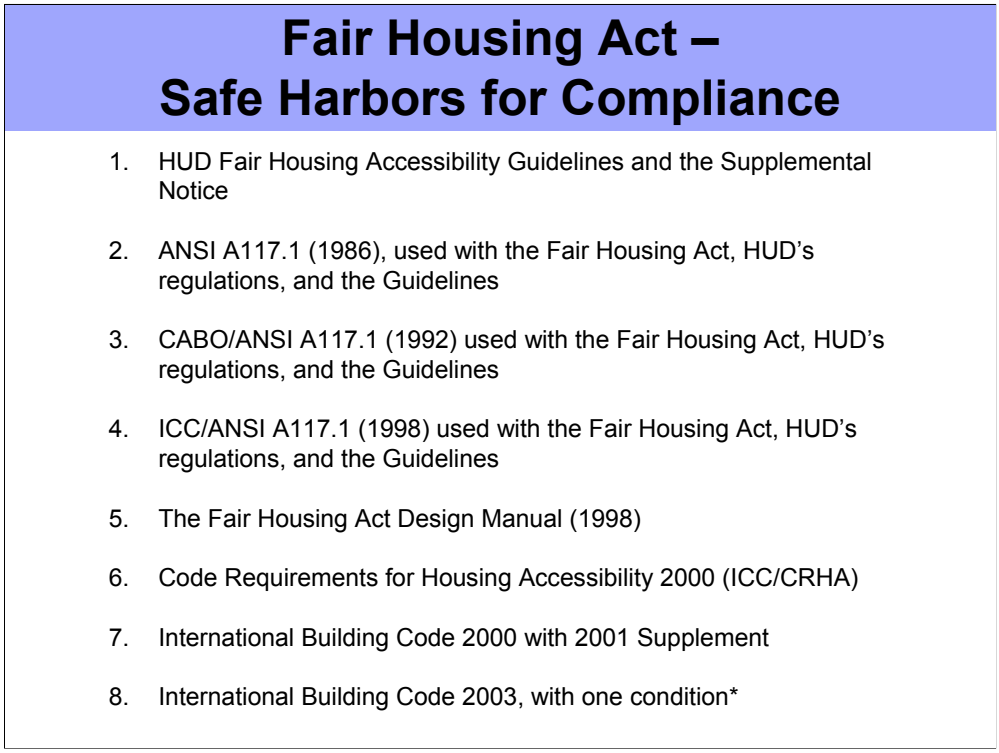
4. The fourth requirement is that ***there must be an accessible route into and through each covered unit***.

5. The fifth requirement is that ***light switches, electrical outlets, thermostats and other environmental controls must be in accessible locations***.

6. The sixth requirement is ***reinforcements in bathroom walls so that grab bars can be added when needed***. The law does not require installation of grab bars in bathrooms.

7. The seventh requirement is that ***kitchens and bathrooms must be usable*** – that is, designed and constructed so an individual in a wheelchair can maneuver in the space provided.

Notes:



Fair Housing Act –
Safe Harbors for Compliance

There are eight safe harbors for compliance with the Fair Housing Act. Compliance with any one of the eight will fulfill the Fair Housing Act's access requirements.

If a particular safe harbor is chosen for use in a particular property, housing must comply with all of the provisions of that safe harbor in order for there to be a safe harbor. So it is unwise to pick and choose among the provisions of different safe harbor standards.

These are the eight access standards that HUD has identified as safe harbors:

1. *The Fair Housing Act Accessibility Guidelines* (issued on March 6, 1991), and the Supplemental Notice to Fair Housing Accessibility Guidelines: Questions and Answers about the Guidelines (issued June 28, 1994).

2. *ANSI A117.1 (1986*), used with the Fair Housing Act, HUD's Fair Housing Act regulations, and the Guidelines.

3. *CABO/ANSI A117.1 (1992),* used with the Fair Housing Act, HUD's Fair Housing Act regulations, and the Guidelines.

4. *ICC/ANSI A117.1 (1998),* used with the Fair Housing Act, HUD's Fair Housing Act regulations, and the Guidelines.

Fair Housing Act – Safe Harbors for Compliance (continued)

5. *The Fair Housing Act Design Manual (1998)*.

6. *Code Requirements for Housing Accessibility 2000 (CRHA),* published by the International Code Council in October, 2000.

7. *International Building Code 2000 (IBC)*, as amended by the IBC's 2001 Supplement to the International Codes.

8. *International Building Code 2003(IBC),* with one condition.*

    * Effective February 28, 2005 HUD determined that the IBC 2003 is a safe harbor, conditioned upon ICC publishing and distributing a statement to jurisdictions and past and future purchasers of the 2003 IBC stating, "ICC interprets Section 1104.1, and specifically, the exception to Section 1104.1, to be read together with Section 1107.4, and that the Code requires an accessible pedestrian route from site arrival points to accessible building entrances, unless site impracticality applies. Exception 1 to Section 1107.4 is not applicable to site arrival points for any Type B dwelling units because site impracticality is addressed under Section 1107.7."

It is important to note that the ANSI A117.1 standard contains only technical criteria, whereas the Fair Housing Act, the regulations and the Guidelines contain both scoping and technical criteria. Therefore, in using any of the ANSI standards it is necessary to also consult the Act, HUD's regulations, and the Guidelines.

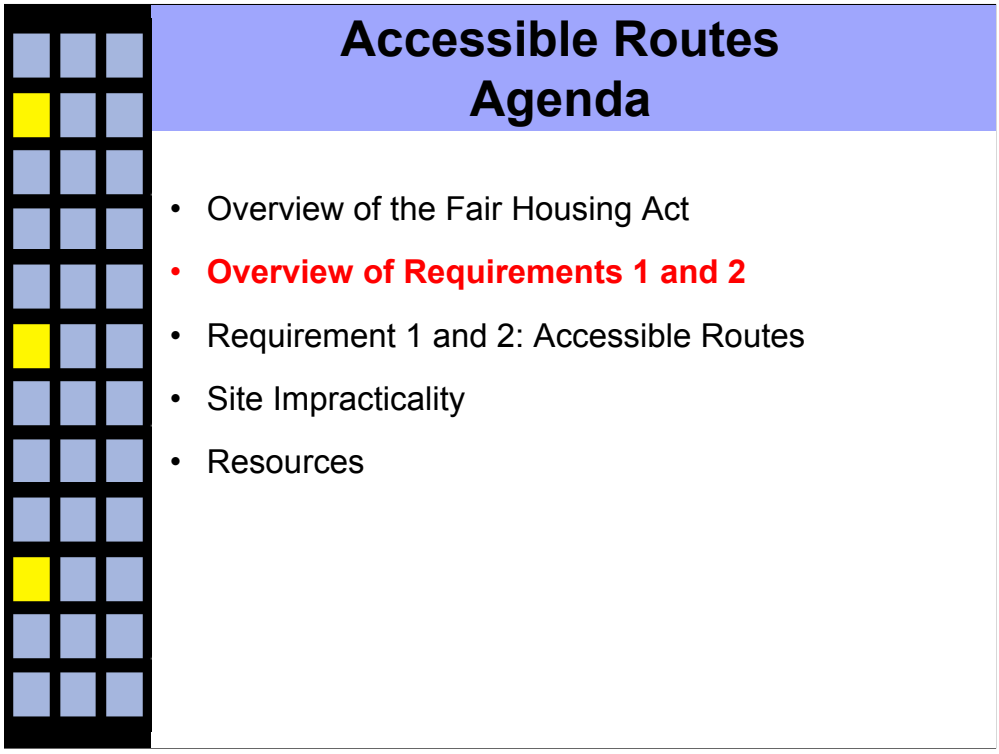
Other means of providing access that provide an equal or greater degree of accessibility may also be used to comply with the Fair Housing Act's access requirements, but they are not a safe harbor.

This training relies on the provisions of the Fair Housing Act, the Guidelines and Supplemental Questions and Answers, ANSI A117.1 (1986) and the Fair Housing Act Design Manual for the guidance that it provides about compliance with the technical design and construction requirements in the Act.

CAUTION:

Safe harbor standards constitute safe harbors only when adopted and implemented in accordance with the policy statement that HUD published in the Federal Register on March 23, 2000. That policy statement notes, for example, that if a jurisdiction adopts a model building Code that HUD has determined conforms with the design and construction requirements of the Act, then covered residential buildings that are constructed in accordance with plans and specifications approved during the building permitting process will be in compliance with the requirements of the Act unless the building code official has waived one or more of those requirements or the building code official has incorrectly interpreted or applied the building code provisions. In addition, adoption of a HUD recognized safe harbor does not change HUD's responsibility to conduct an investigation if it receives a complaint.

Notes: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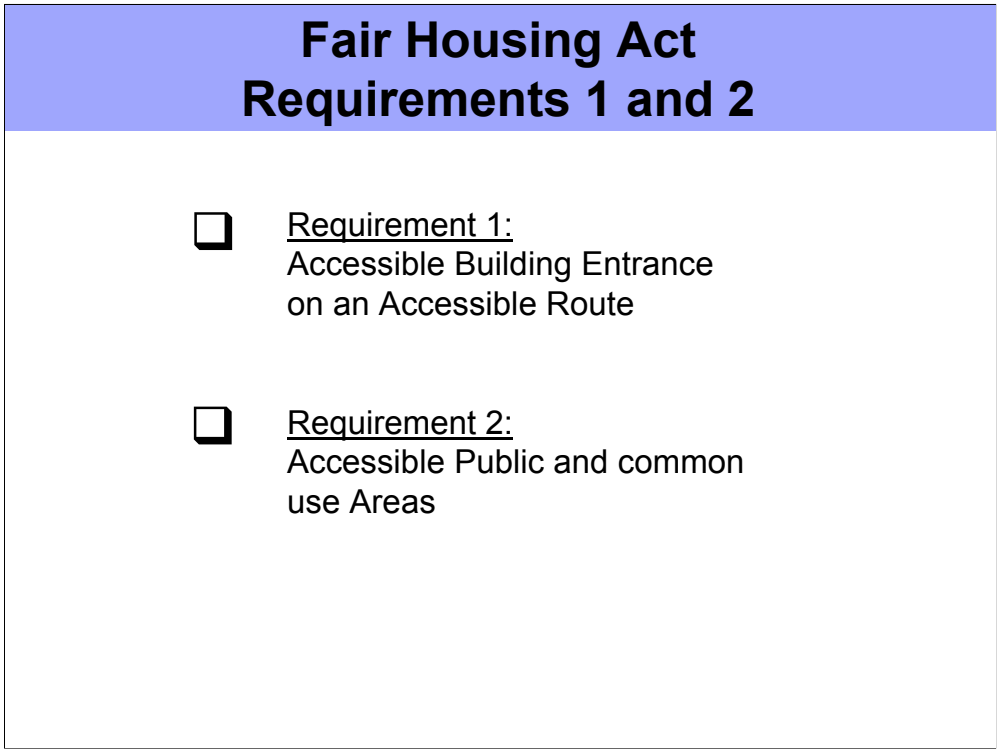


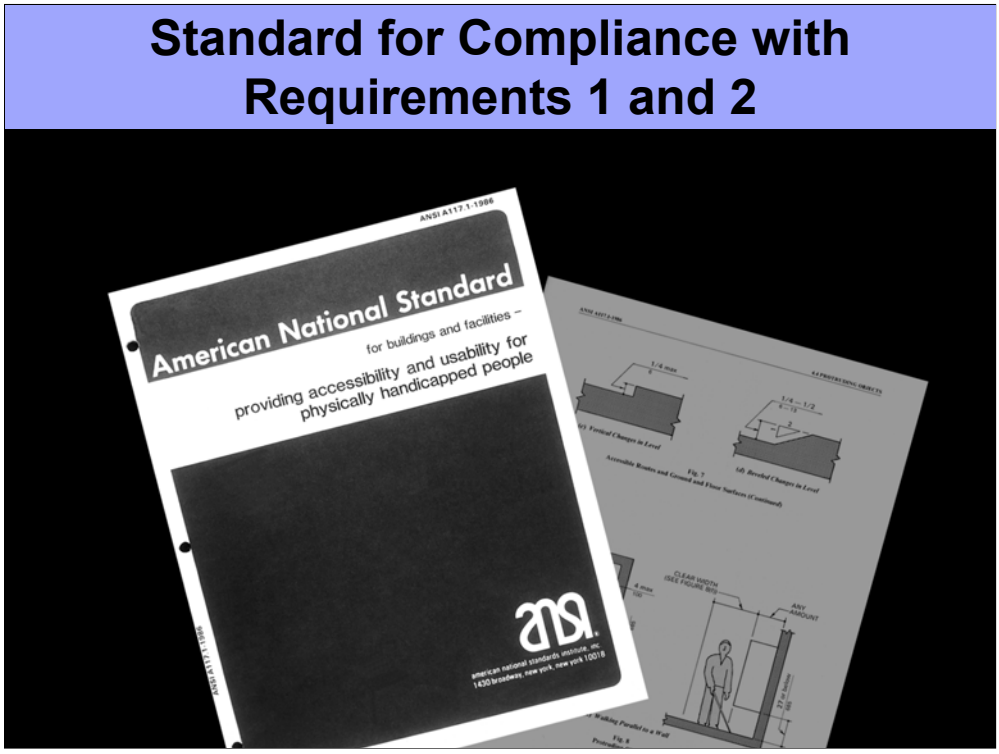
Fair Housing Act Requirements 1 and 2

The Fair Housing Accessibility Guidelines (Guidelines) provide guidance on designing accessible building entrances and accessible public and common use areas.

Requirement 1, Accessible Building Entrance on an Accessible Route, presents guidance on designing an accessible building entrance on an accessible route. Requirement 1 also provides tests to assist a developer, of buildings that do not have one or more elevators, to determine when an accessible entrance on an accessible route is impractical because of extreme terrain or unusual site characteristics. Site impracticality will also be discussed later in this module.

Requirement 2, Accessible Public and common use Areas, provides guidance on designing accessible public areas, site facilities, and features. Accessible building entrances and accessible routes covered in requirement 1 – Accessible Building Entrance on an Accessible Route, are common use areas and must be designed to comply with Requirement 2 – Accessible Public and common use Areas.

These two requirements, when applied to the design of covered multifamily projects, result in sites which allow persons with disabilities full and equal access to building entrances, amenities and site facilities.



Standard for Compliance with Requirements 1 and 2

The Fair Housing Act and the Fair Housing Accessibility Guidelines (the Guidelines), reference ANSI A117.1-1986, American National Standard for building and facilities – providing accessibility and usability for physically disabled people (ANSI).

The Guidelines establishes ANSI as a minimum standard to comply with when designing public and common use areas, including accessible building entrances required to be on an accessible route.

HUD also recognizes later editions of ANSI, 1992 and 1998, as being safe harbors for compliance when used in conjunction with the Act, the regulations, and the Guidelines.

In this training, when an ANSI specification is presented, the 1986 edition is being cited.

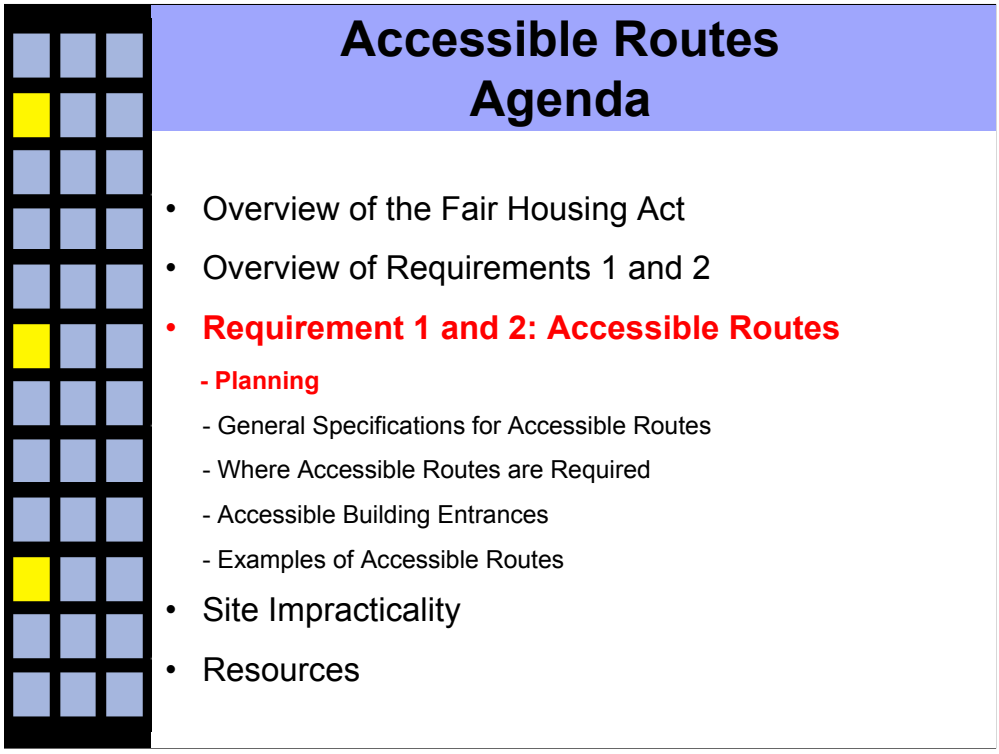
Basic Components for Accessible Public and Common Use Areas

In Requirement 2, the Guidelines include a chart that identifies public and common use elements and spaces that must be accessible. The chart references the applicable section of the ANSI Standard and gives further directions on where, when, and how many elements and spaces must be accessible. Generally the public and common use areas must be on an accessible route so they can be approached, entered and used by people with disabilities.

Certain accessible routes to dwelling entrances required to be accessible under Requirement 1 are public and common use areas and must be designed in compliance with the accessibility provisions in Requirement 2.

Refer to the Fair Housing Act Guidelines.

Notes: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- Accessible Building Entrances
- Examples of Accessible Routes
• Site Impracticality
• Resources

Notes:

Planning is Essential to Accessible Design

Planning for accessibility should be an integral part of the design process in covered housing developments.

Notes:

Planning - Steep Slopes

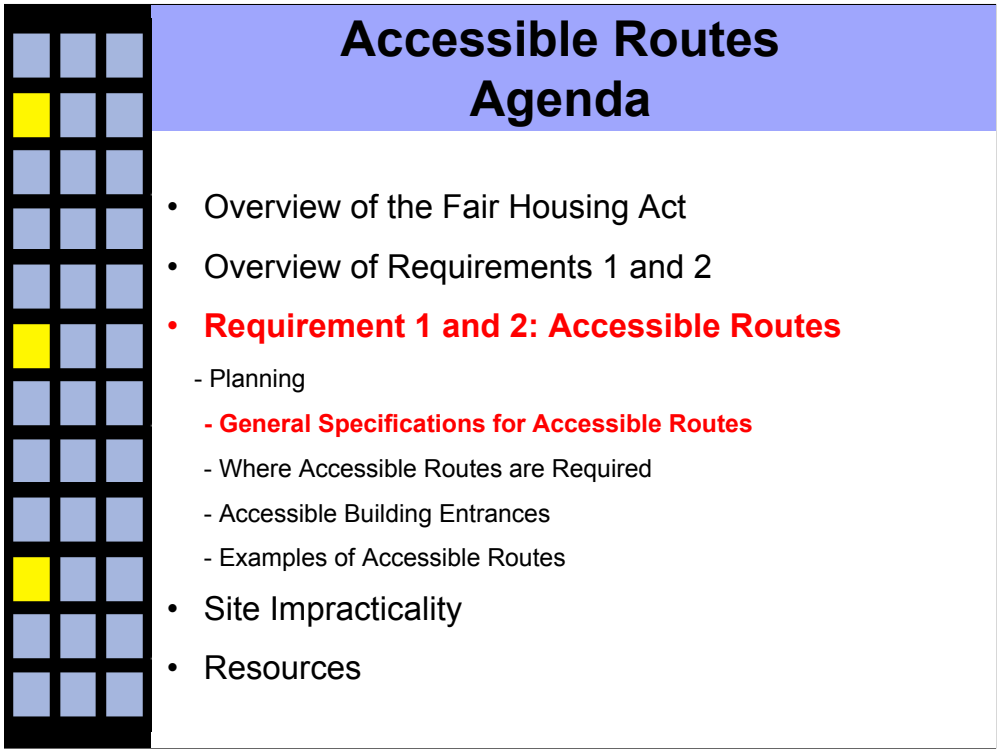
On sites with slopes, careful planning at an early phase can eliminate the need for elaborate ramps to provide accessibility.

Notes:

Planning –
Building Entrances Close to Ground Level

Attempts should be made during the early design phase to locate and plan building entrances close to ground levels to eliminate the need for steps and ramps.

Notes: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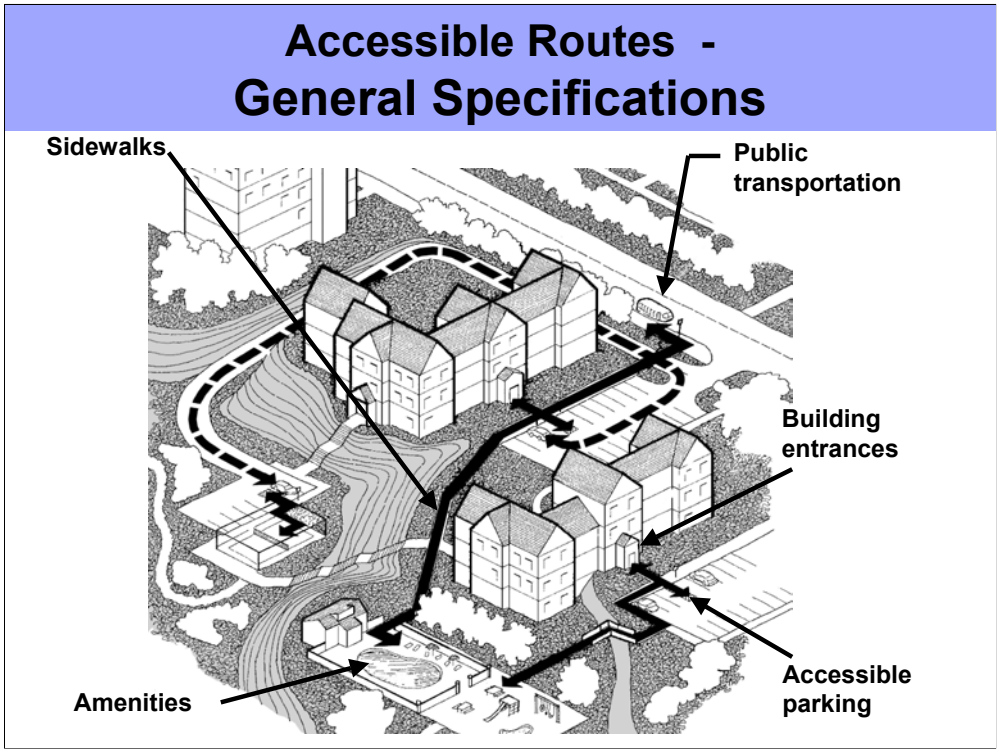
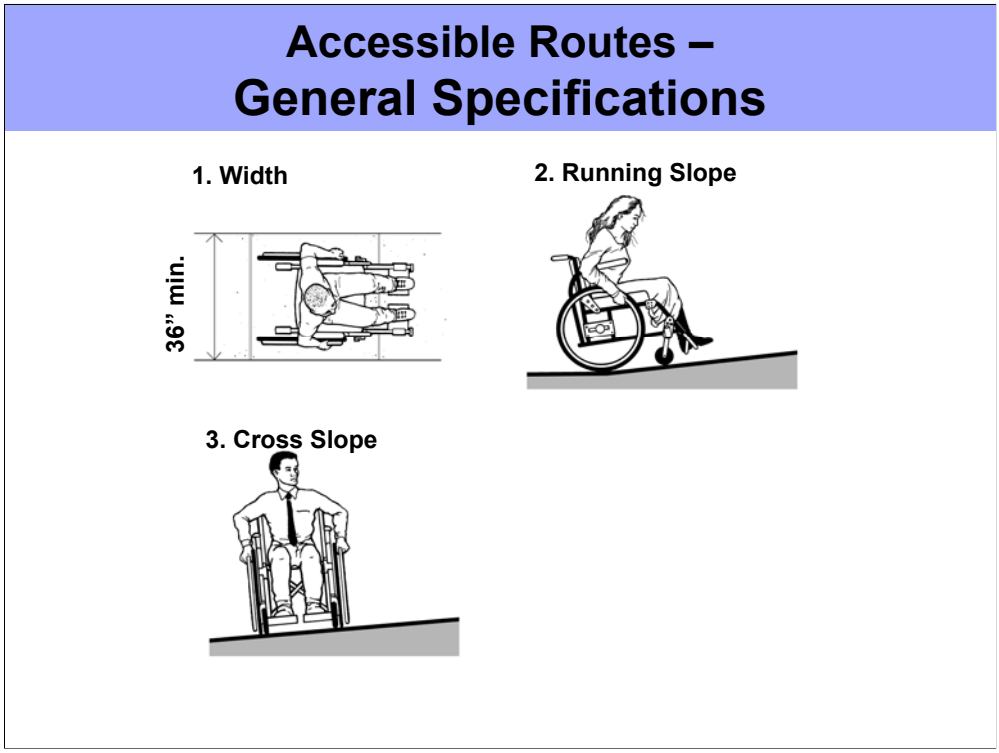


Accessible Routes - General Specifications

When designing sites in compliance with Requirements 1 and 2, an accessible route is the key element that allows people with mobility disabilities to travel around a building site and enter, use and enjoy features available to all residents. It is a continuous pedestrian path with no steps, abrupt changes in level or steep slopes. Accessible routes must connect covered dwelling entrances with public transportation stops, passenger loading zones (parking lots), and public streets and sidewalks, if available.

Notes:



Accessible Routes - General Specifications

Specifications for accessible routes may be found in **ANSI 4.3, Accessible Route**. Some of the key specifications for an accessible route are:

1. A 36" minimum width. ANSI gives additional specifications to apply when accessible routes go around obstructions.
2. The maximum slope of an accessible route is 1:20. Slopes greater than 1:20, up to 1:12, are allowed, but they would have to comply with the ramp provisions in ANSI.
3. Cross slopes may not exceed 1:50 (approximately ¼" per foot, which is 1:48).

Notes:

Accessible Routes – General Specifications Ground Surface

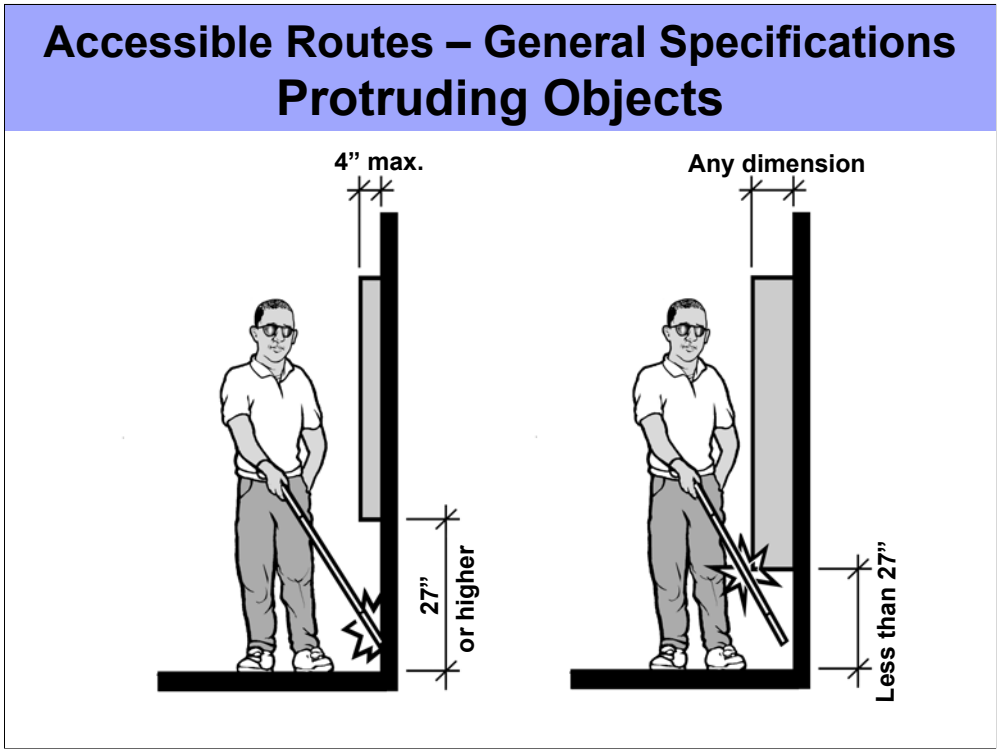
Accessible Routes - General Specifications
Ground Surface

ANSI 4.3, Accessible Route, also provides specifications for ground and floor surfaces that accessible routes must comply with.

Ground surface along accessible routes must be stable, firm and slip resistant. Gravel or loose stone, as shown in this photograph, is not allowed. Surfaces such as these are hazardous for persons who use mobility aides, such as canes, crutches, walkers, wheelchairs and scooters.

Interior accessible routes must also comply with ground and floor surface requirements.

Notes:



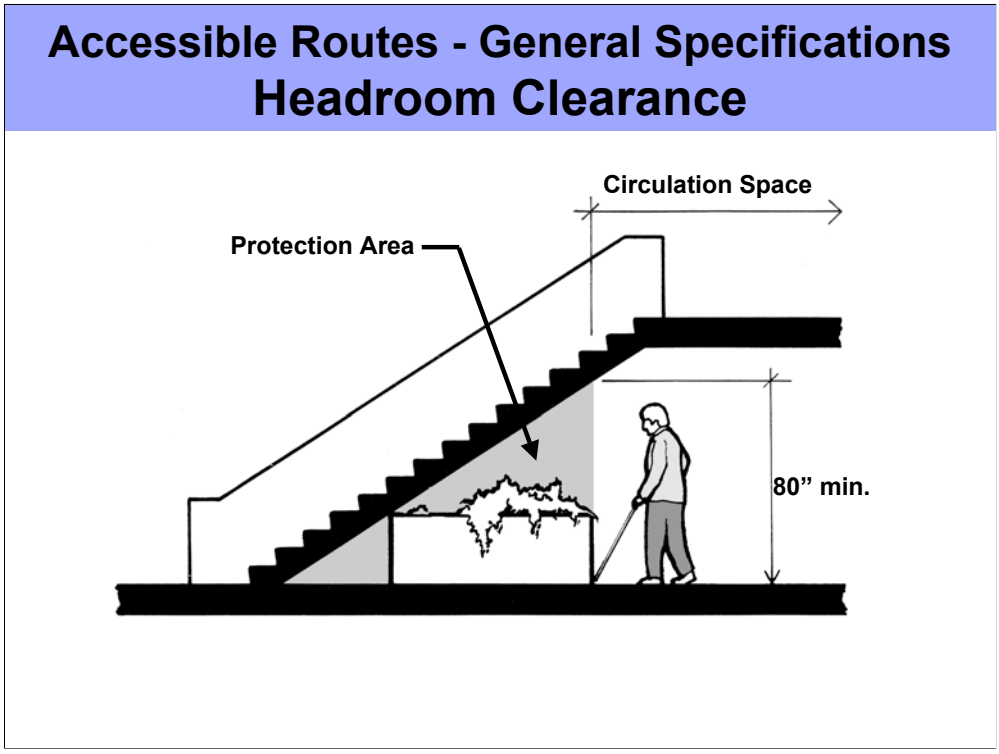
Accessible Routes - General Specifications
Protruding Objects

ANSI 4.4, Protruding Objects, also provides specifications for protruding objects.

Examples of wall hung objects that must not protrude more than 4” when located between 27” and 80” above finish floor include:

- Fire extinguisher cabinets
- Mail boxes
- Large ornate picture frames
- Light fixtures
- Wall mounted water fountains
- Wall mounted telephones

Objects mounted lower than 27” above finish floor may protrude any amount as long as the minimum clear width of an accessible route is maintained.

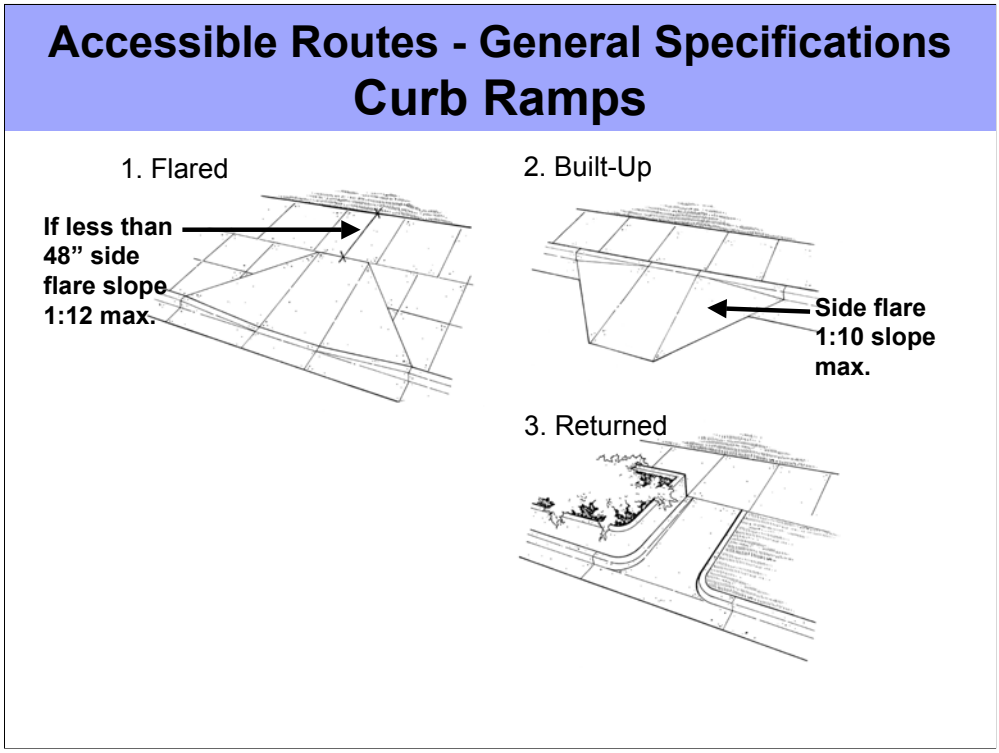


Accessible Routes - General Specifications
Headroom Clearance

Accessible routes along walks, corridors, breezeways, and other circulation spaces must have 80" minimum headroom height, including at all wall and ceiling mounted signs, light fixtures, etc.

Frequently in multifamily buildings, open stairways leading to upper floors are located in breezeways. When provided, the underside of the stairs must be protected from cross traffic by a guardrail or other barrier with its leading edge at or below 27" above finish floor.

Notes:



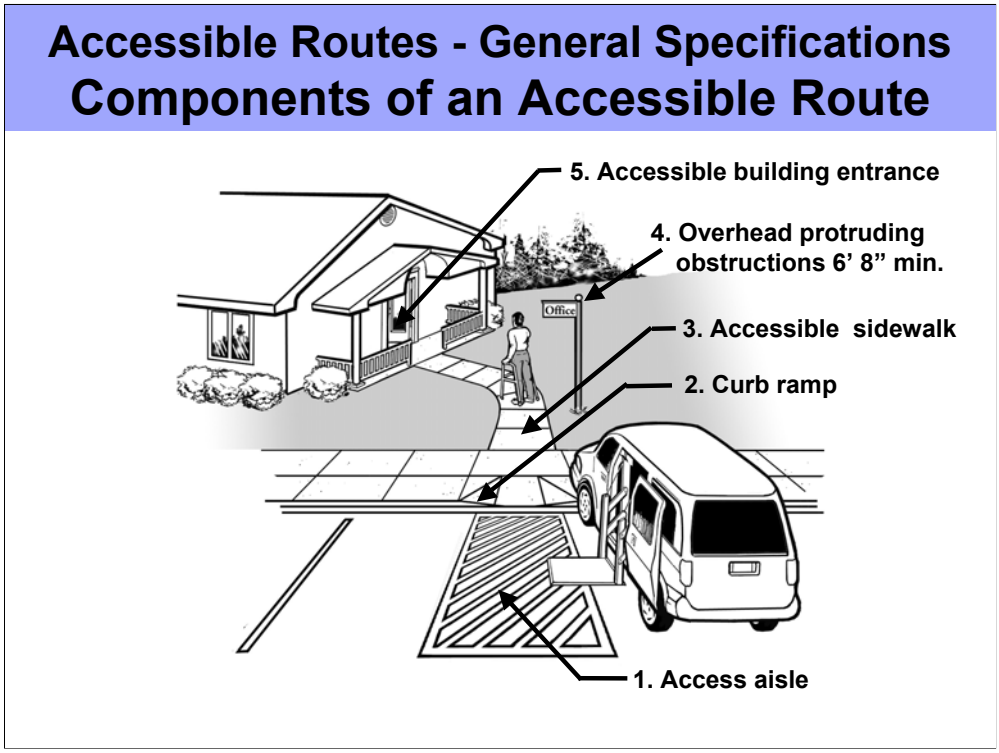
Accessible Routes - General Specifications
Curb Ramps

ANSI provides specifications for three curb ramp designs. In all three designs, the maximum running slope is 1:12. The slopes of side flares varies.

1. **Flared side curb ramps** may be recessed into pedestrian walkways. If there is a 48" level passageway or greater at the top of the ramp, side flares may be 1:10, otherwise they must slope no greater than 1:12. If an accessible route passes by the top of a flared ramp, a minimum width of 36" must be maintained. As noted above, side flares would need to have slopes no steeper than 1:12.

2. The **built-up ramp** design extends out into the parking area, but it must not extend out into a traffic lane. Side flares may not exceed 1:10 slope. Built-up ramps are not preferred as they sometimes interfere with the operation of wheelchair lifts.

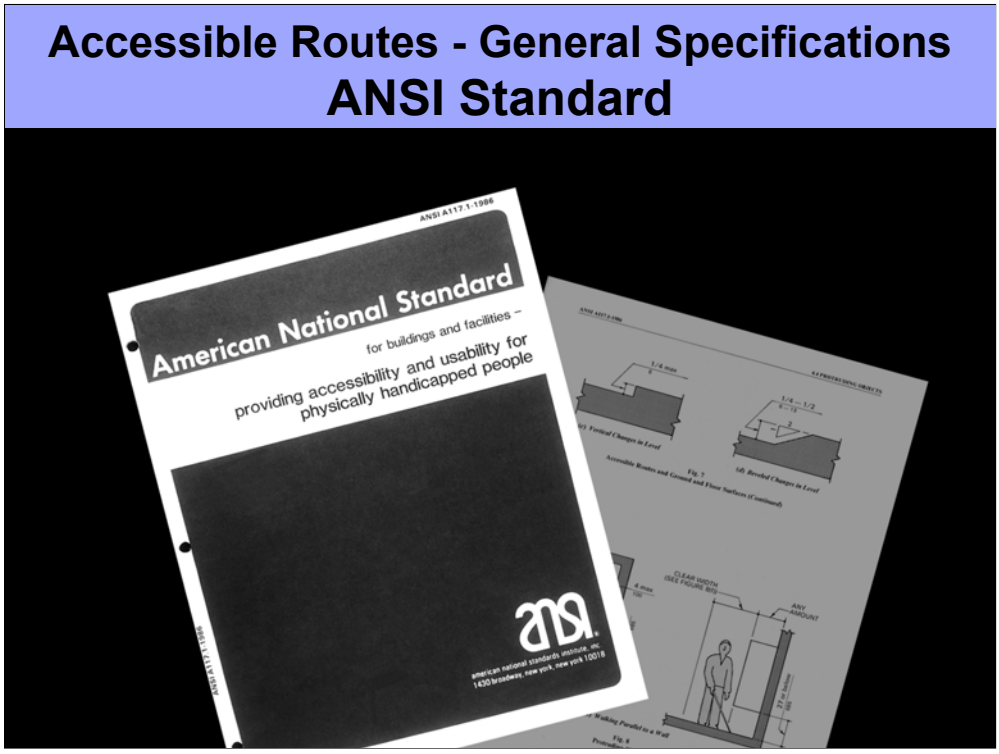
3. **Returned curb ramps** may be used where pedestrian traffic is not intended to cross the ramp.



Accessible Routes - General Specifications
Components of an Accessible Route

In summary, an accessible route leading from a vehicular arrival point to a building entrance might include:

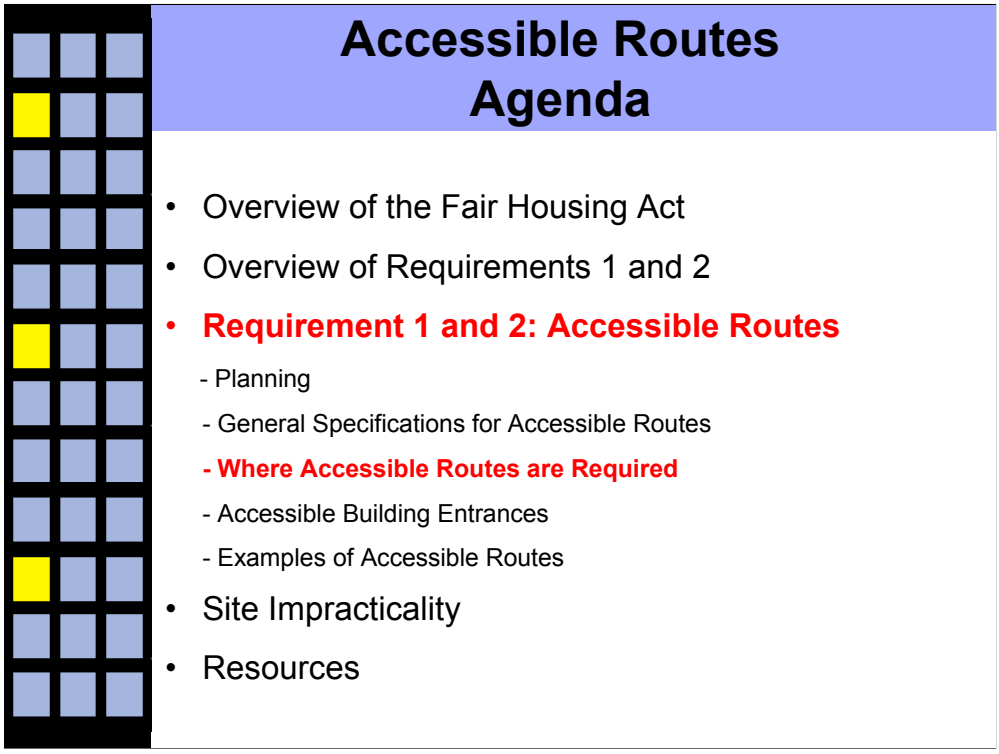
1. An access aisle
2. Curb ramps
3. Accessible sidewalks
4. A route free from protruding objects
5. An accessible building entrance



Accessible Routes - General Specifications
ANSI Standard

Design professionals and others who are involved with the design and construction of multifamily developments must consult ANSI for additional specifications for accessible routes.

Notes: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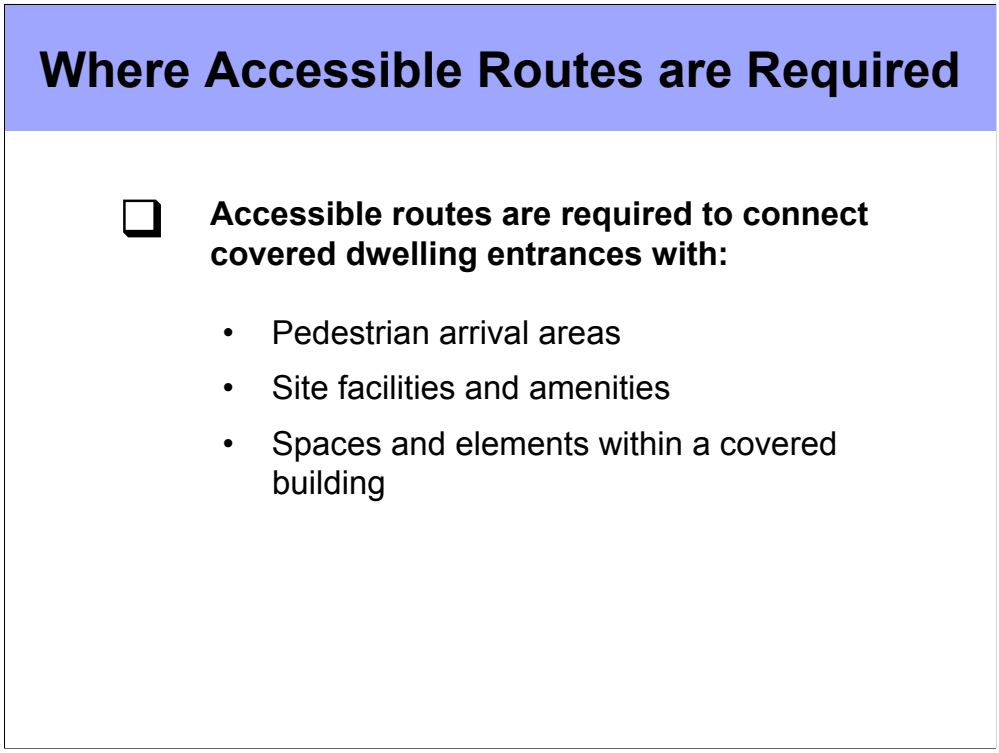


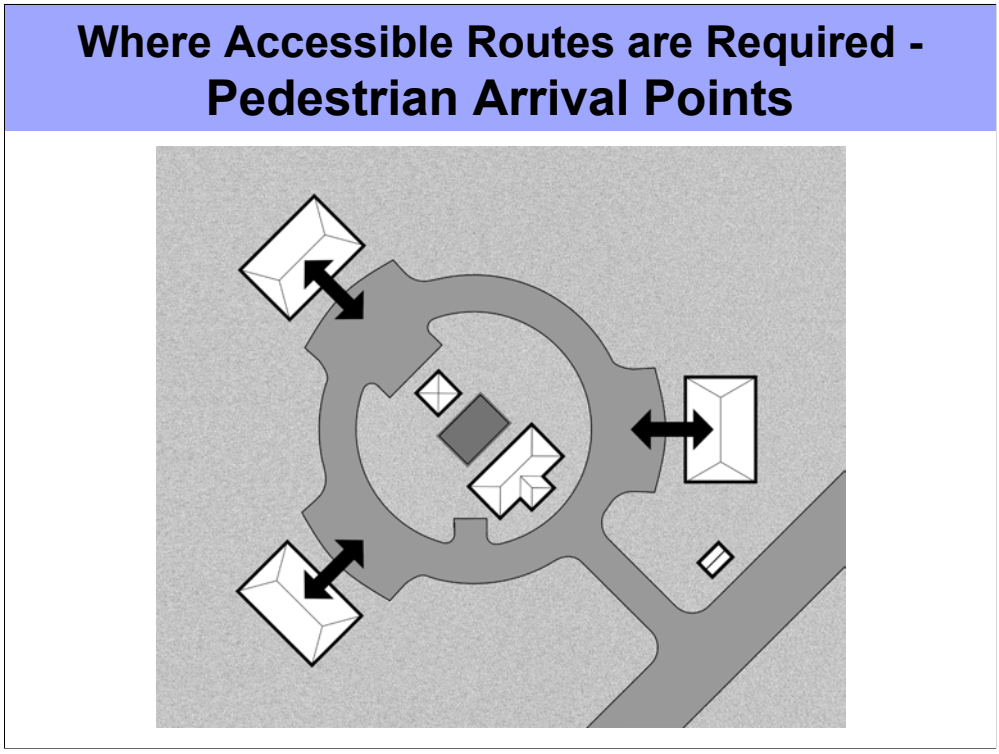
Where Accessible Routes are Required

Within the boundaries of a site, the Guidelines require accessible routes to connect:

1. At least one accessible building entrance on an accessible route with all pedestrian arrival areas, including public transportation stops, parking, passenger loading zones or public streets and sidewalks (Requirement 1 and 2)

2. Covered dwelling entrances with site facilities and amenities (Requirement 2)

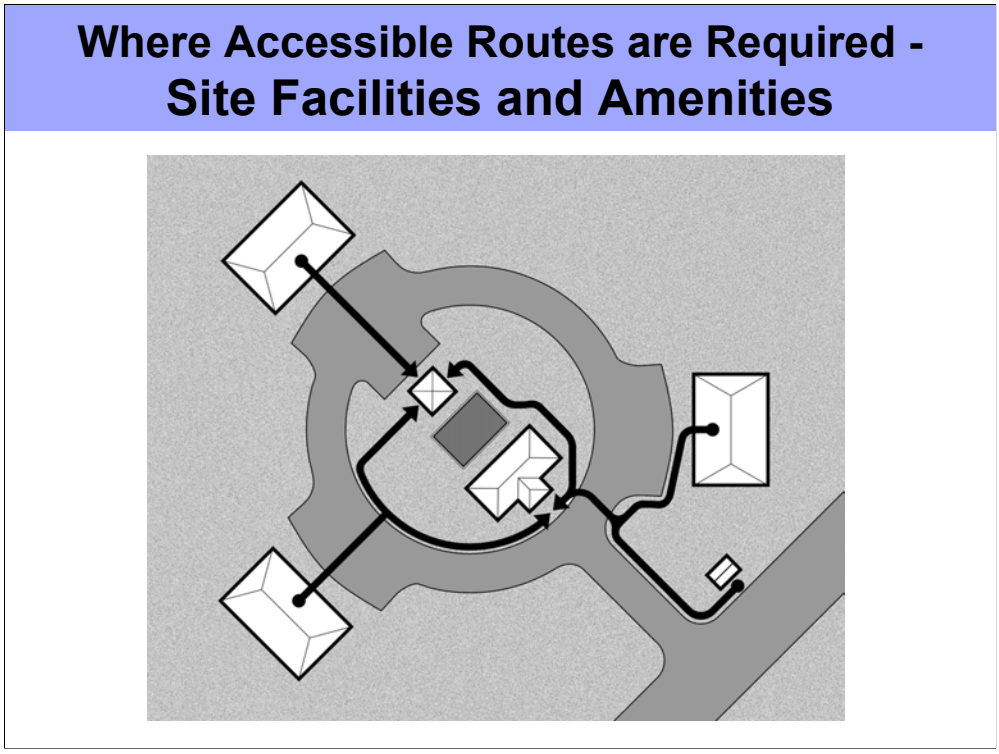
3. Covered dwelling entrances with spaces and elements within a covered building (Requirement 2)



**Where Accessible Routes are Required -
Pedestrian Arrival Points**

For instance, in this modest development plan, accessible routes are required to lead from the building entrance out to the pedestrian arrival point, the parking lot in this illustration.

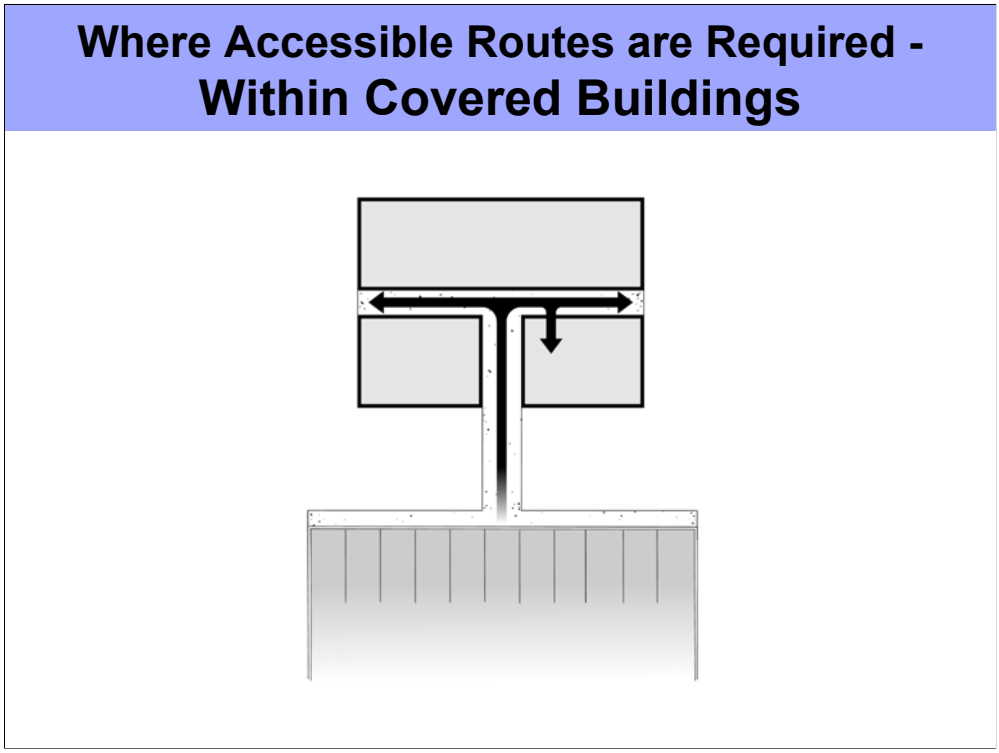
Notes:



**Where Accessible Routes are Required -
Site Facilities and Amenities**

Accessible routes are also required at each covered building entrance to connect with site facilities and amenities. This diagram shows an accessible route from each of the three multifamily buildings connecting to the site facilities and the kiosk on the street – which could be a public transportation stop or school bus stop (Requirement 2).

Notes:



**Where Accessible Routes are Required -
Within Covered Buildings**

Lastly, accessible routes must be provided within a covered building which connects elements and spaces within a building (Requirement 2).

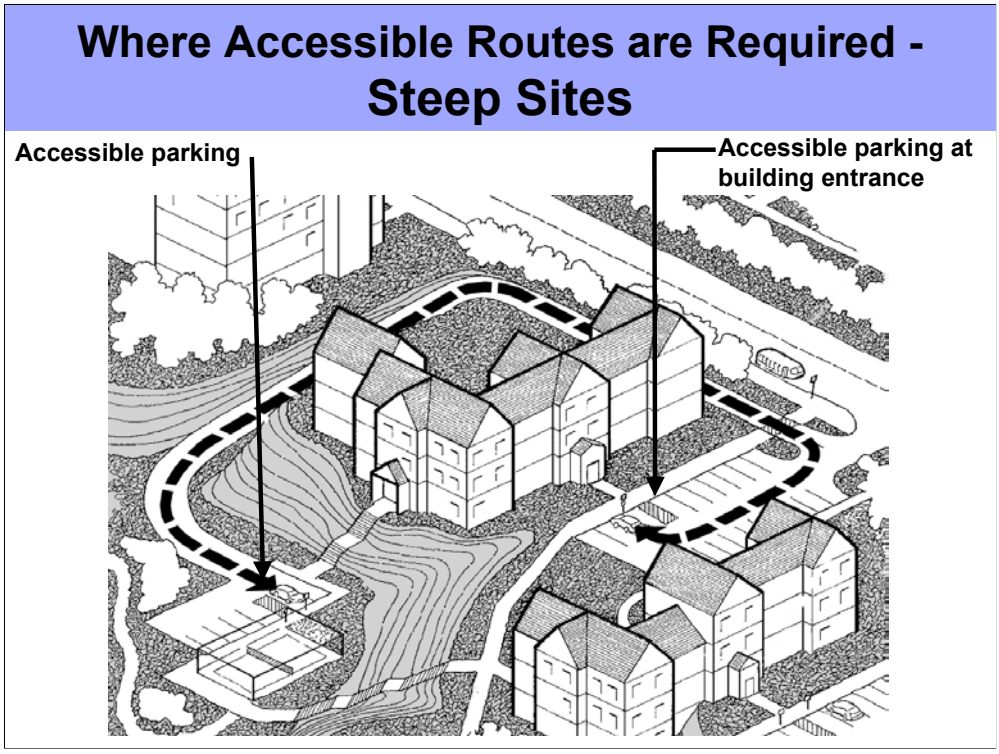
Notes:

**Where Accessible Routes are Required -
Vehicular Arrival Points**

Many times, parking lots are designed to double as a required accessible route. While this practice is not disallowed, it does present other problems, which frequently result in non-compliance:

1. It is difficult to maintain accessible route slope standards, especially cross slopes, in parking lots that have steep pitched areas leading to storm drainage structures.

2. Safety is always a concern when people have to pass through vehicular points.



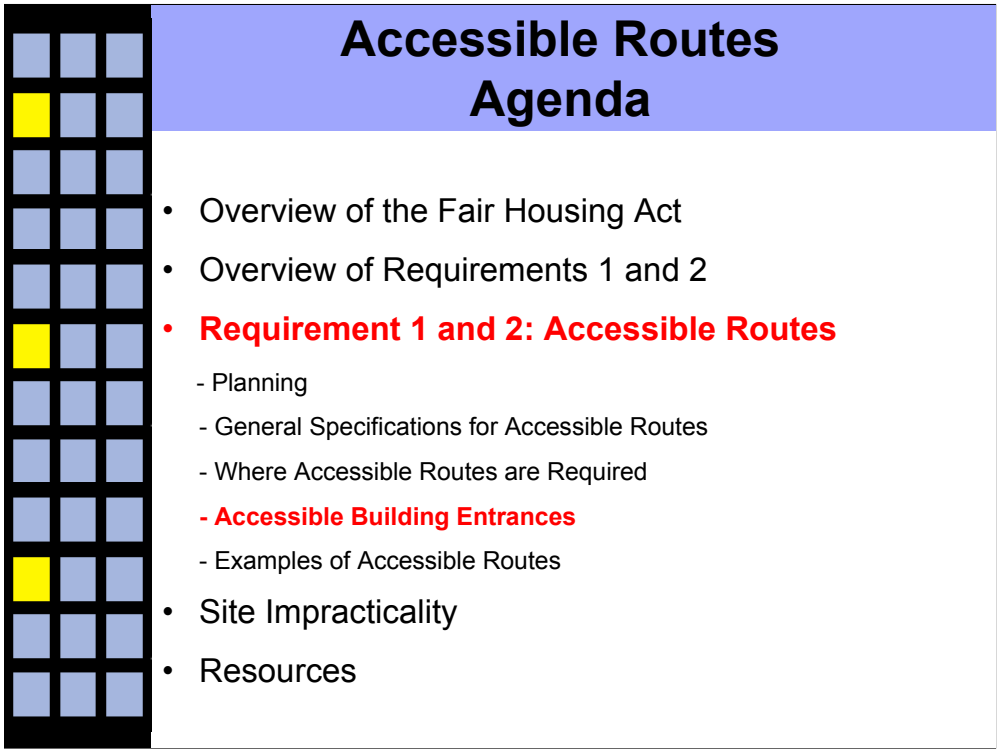
Where Accessible Routes are Required - Steep Sites

When sites are too steep, when finished grades exceed 1:12 or when other barriers, either natural or manmade, all outside the control of the owner, make pedestrian accessible routes impractical, the Guidelines allow the use of an automobile for access to those facilities impacted by steep terrain.

When this vehicular route is used as an alternative method for accessibility, there must be accessible parking at each facility served.

The accessible parking must meet the provisions of ANSI 4.6, Parking Spaces and Passenger Loading Zones.

Notes: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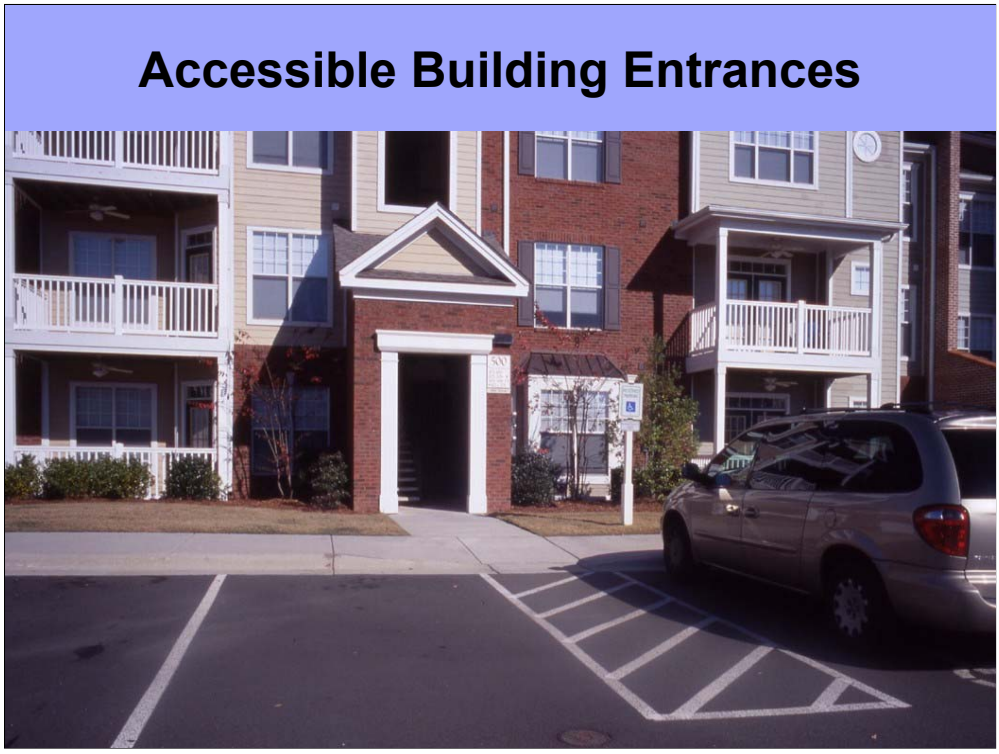


Accessible Building Entrances

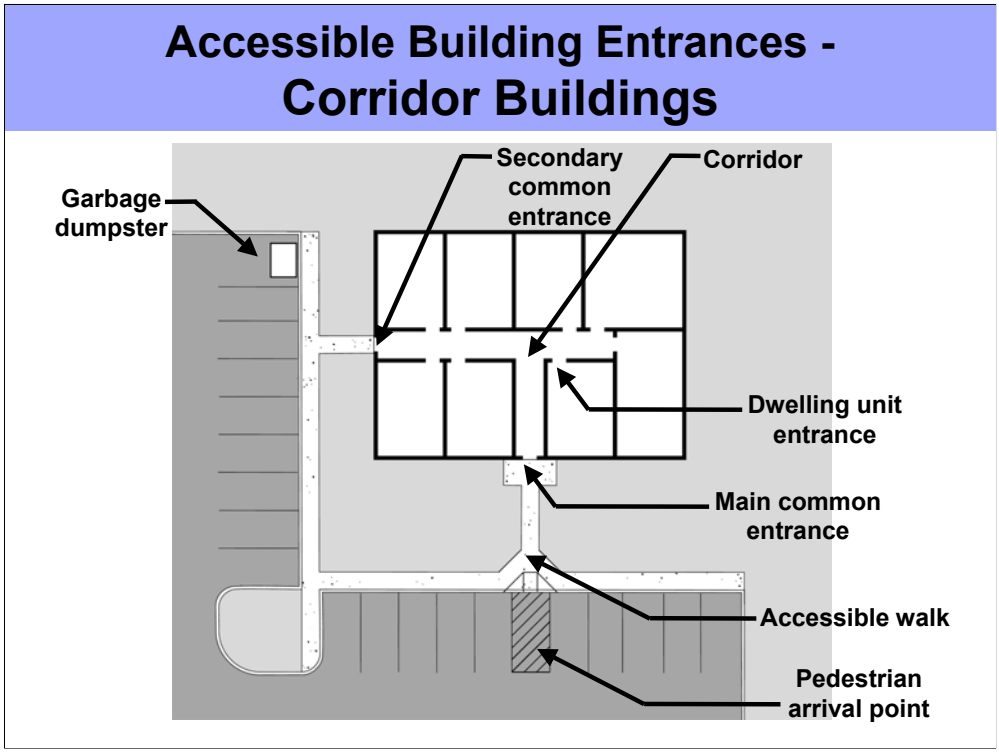
The following discussion focuses on which building entrances must be accessible in multifamily developments covered under the accessibility requirements of the Fair Housing Act.

Under Requirement 1, all buildings containing four or more dwelling units must have at least one accessible entrance on an accessible route.

In rare instances, some dwellings may be exempt from compliance with the Fair Housing Act because they are built on steep sites or sites with unusual site characteristics. Exemptions such as these, termed "site impracticality" will be discussed later in this session.

Under Requirement 2, all buildings containing public and common use facilities, such as clubhouses, separate laundry buildings, mail buildings, and other facilities, must have an accessible entrance on an accessible route.

With respect to the entrance of buildings containing public and common use facilities, there are no exceptions for site impracticality, even though the route to these facilities may be by vehicle when the site is extreme.



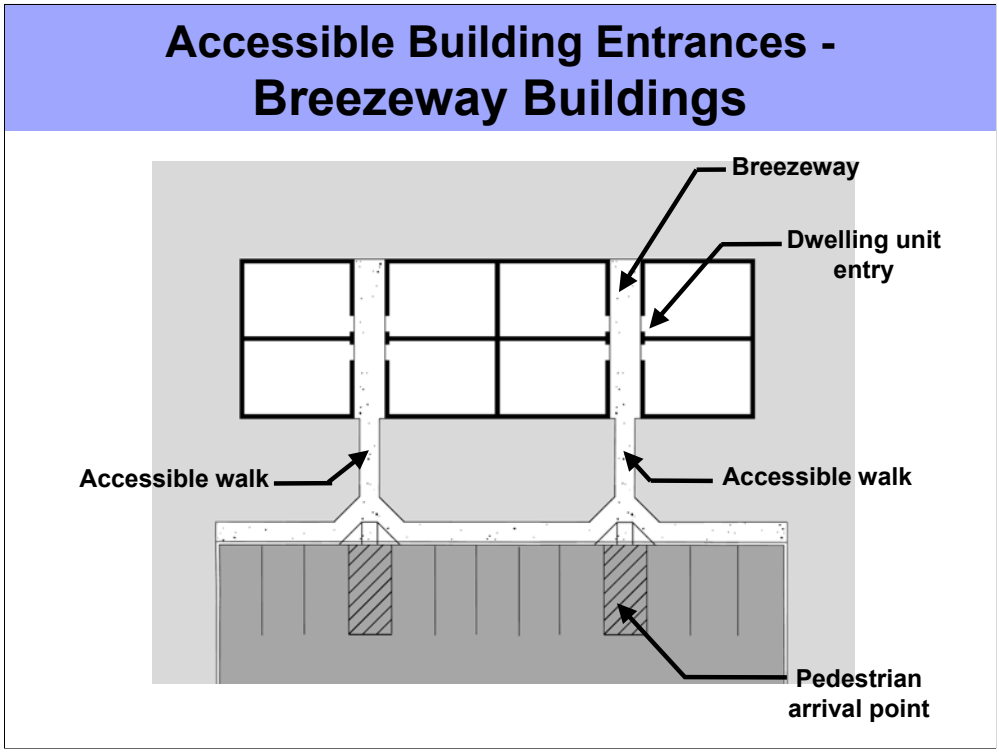
**Accessible Building Entrances -
Corridor Buildings**

The following discussion will present various configurations of covered buildings.

Determination of which building entrance to make accessible depends on how the individual ground-floor unit entries are served by the building circulation scheme.

For instance, in this plan diagram, an interior corridor serves each individual unit entry. Two common entrances to the building are shown; only the primary entrance is required to be accessible.

The accessible entrance must be one which is typically used by residents and/or guests for the purpose of entering the building. Service doors or loading docks cannot serve as the only accessible entrance to buildings, even if residents occasionally use such doors for entering the building.

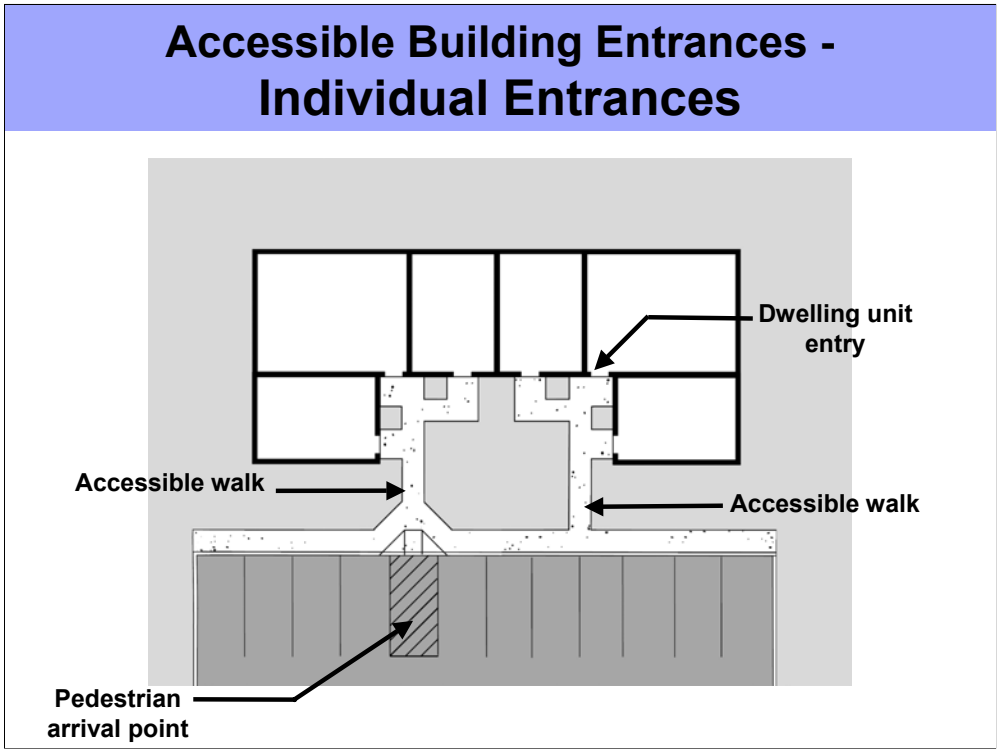


Accessible Building Entrances -
Breezeway Buildings

Breezeway buildings can be thought of as corridor buildings, except the "corridor" is exposed to the weather.

Each individual unit entry must be served by an accessible route. In this diagram, there are eight ground-floor units served by two breezeways with each breezeway serving four units. Both breezeways then must be on an accessible route.

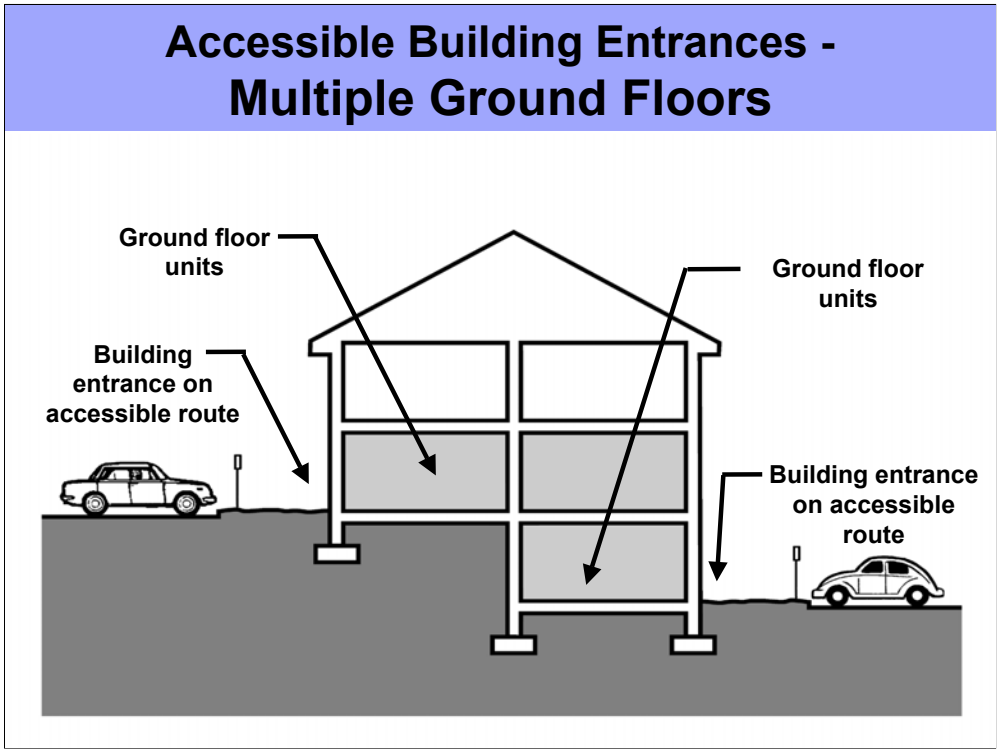
If an individual breezeway goes all the way through the building as shown in this illustration, and has two entrances, at least one entrance must be accessible and on an accessible route.



**Accessible Building Entrances -
Individual Entrances**

In buildings where each unit has an individual entrance, each entrance must be accessible and served by an accessible route leading to a pedestrian arrival area.

Notes:

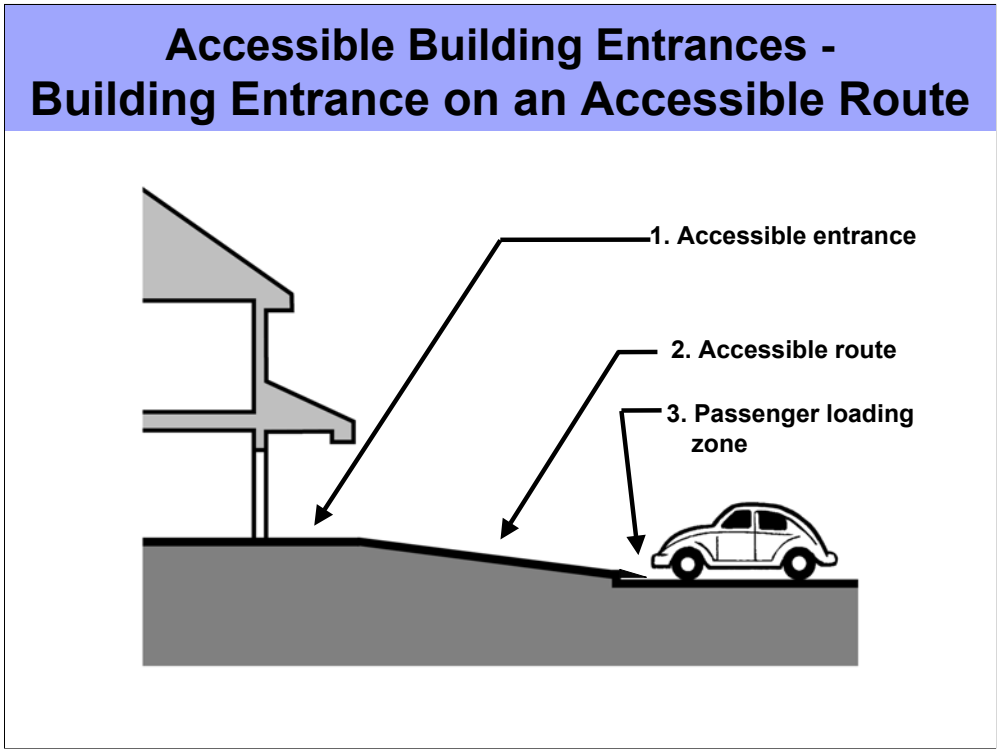


**Accessible Building Entrances -
Multiple Ground Floors**

These are numerous building configurations that could have more than one ground floor. When vehicular arrival points are established at the entrance to a building, the level of the building served by that entrance is considered to be a ground floor. Multi-story parking garages with elevated walkways connecting to the upper floors of buildings containing dwelling units are a common example.

The Guidelines define a ground floor as "A floor of a building with a building entrance on an accessible route. A building may have one or more ground floors."

Notes:



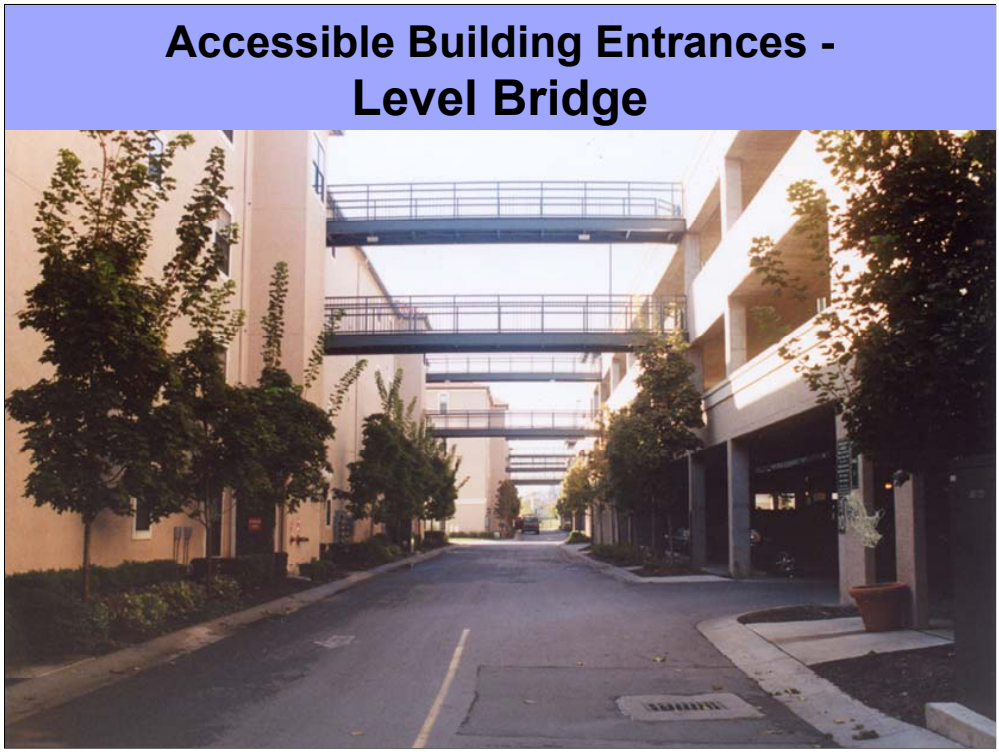
Accessible Building Entrances -
Building Entrance on an Accessible Route

The Guidelines definitions section also provides a definition for a "building entrance on an accessible route," which is, "An accessible entrance (1) to a building that is connected by an accessible route; (2) to public transportation stops, to parking or passenger loading zones or (3) to public streets or sidewalks if available."

To summarize, the following three conditions, when they exist, create an accessible building entrance on an accessible route;

1. An accessible entrance
2. An accessible route
3. A pedestrian arrival area, for instance, parking area, transportation stops, etc.

Accessible building entrances are not optional. Accessible entrances must be provided unless impractical due to steep terrain or unusual site characteristics.

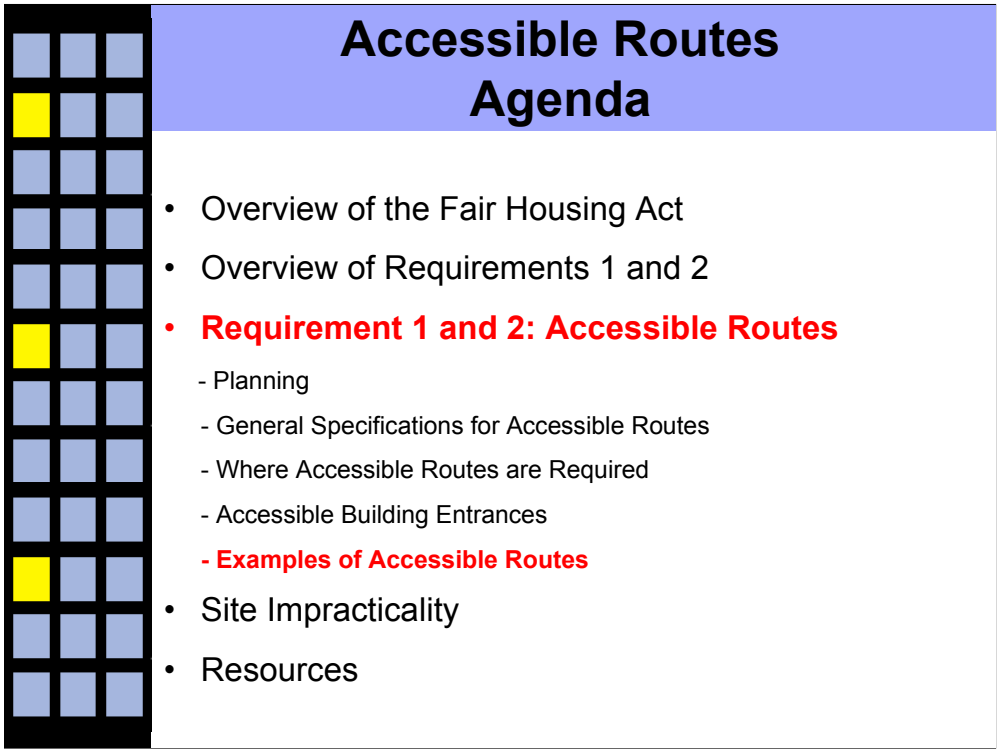


**Accessible Building Entrances -
Level Bridge**

This is another example of a building with more than one ground floor. In this case, level bridges (accessible routes) have been provided linking a parking garage (vehicular arrival area) with building entrances (accessible building entrances).

Notes:

Notes: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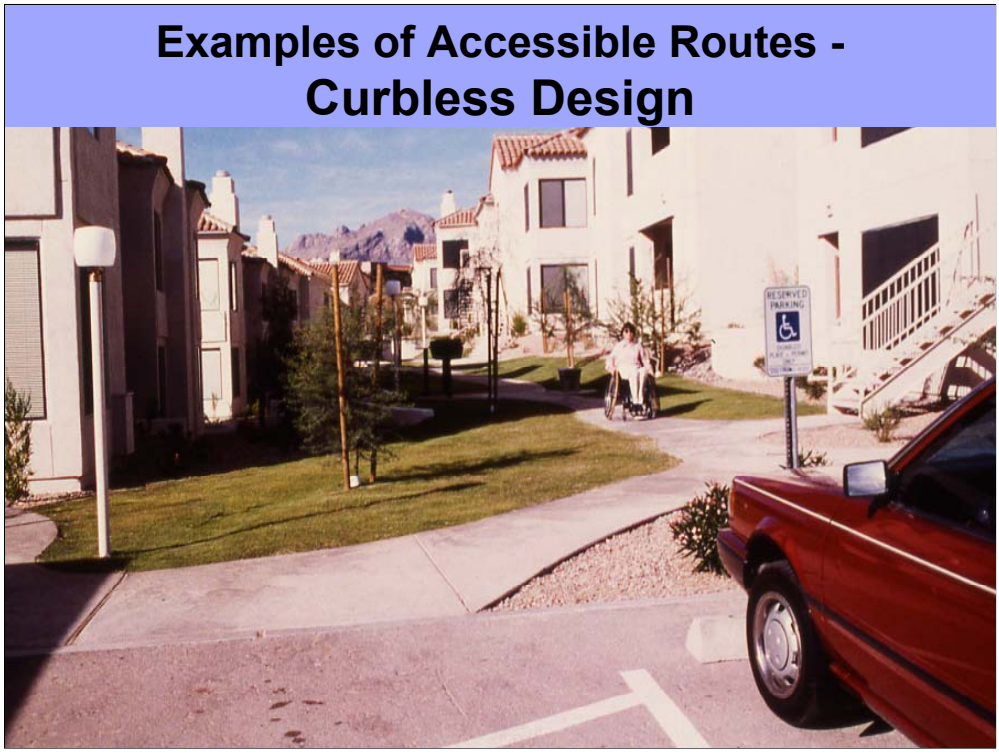
Examples of Accessible Routes – Aesthetically Pleasing Walkways

Notes:



**Examples of Accessible Routes -
Curbless Design**

Curbless designs, such as the one shown above, can make curb ramps unnecessary. Improperly designed curb ramps are one of the most frequently occurring non-compliant features.

When this type of design is used, bumpers or bollards should be installed at parking spaces to keep automobiles from potentially pulling up on and blocking accessible routes.

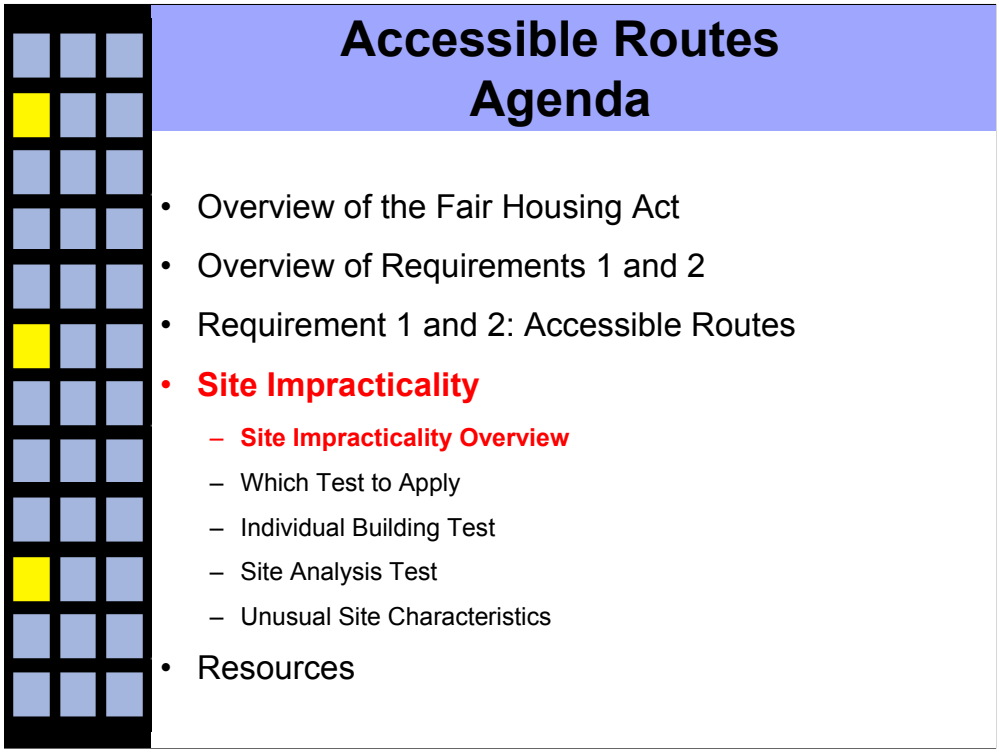
Notes:

Examples of Accessible Routes - Level Elevated Walkways

**Examples Accessible Routes -
Level Elevated Walkways**

Level elevated walkways are another way to create accessible routes, especially when connecting covered entrances with uphill pedestrian arrival areas.

Notes: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Site Impracticality

In rare instances, some units may not be covered by the Guidelines because they are built on sites with difficult terrain or sites with other unusual characteristics.

The Guidelines provide tests to determine site impracticality—two for terrain and one for unusual characteristics (such as flood plains or coastal high hazard areas).

The tests provided in the Guidelines are intended to be applied during the early phases of design. Claims of site impracticality should always be substantiated by evidence tabulated during the application of the appropriate test.

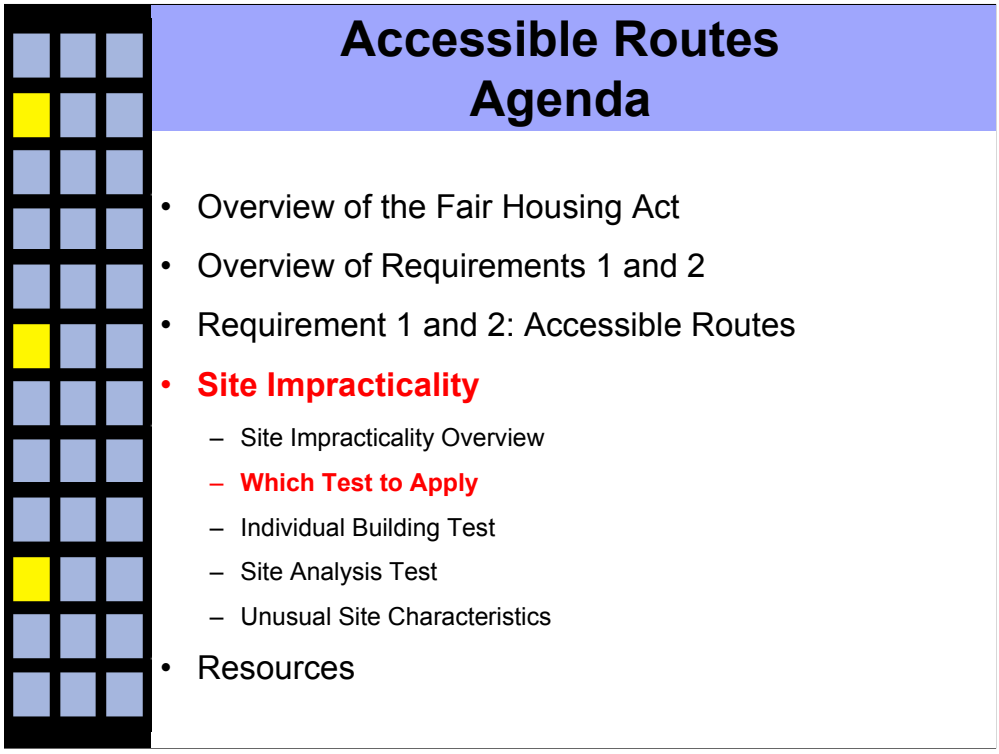
Site Impracticality
Difficult Terrain

Two tests are used to determine if a site is impractical due to difficult terrain:

1. *Individual Building Test*

2. *Site Analysis Test*

Notes: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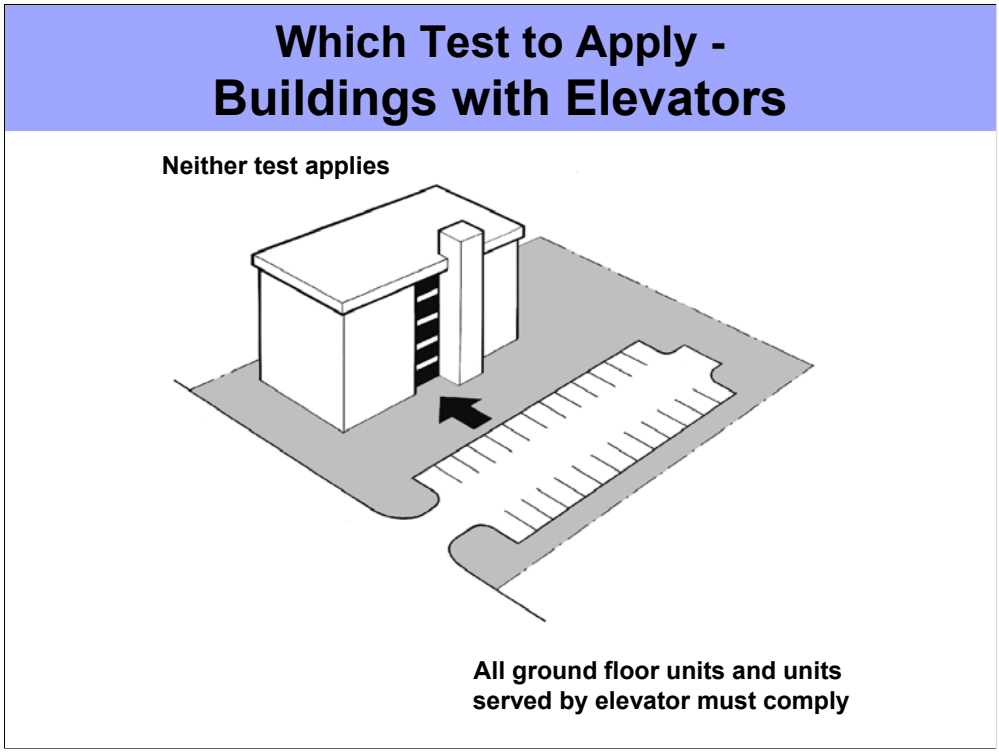
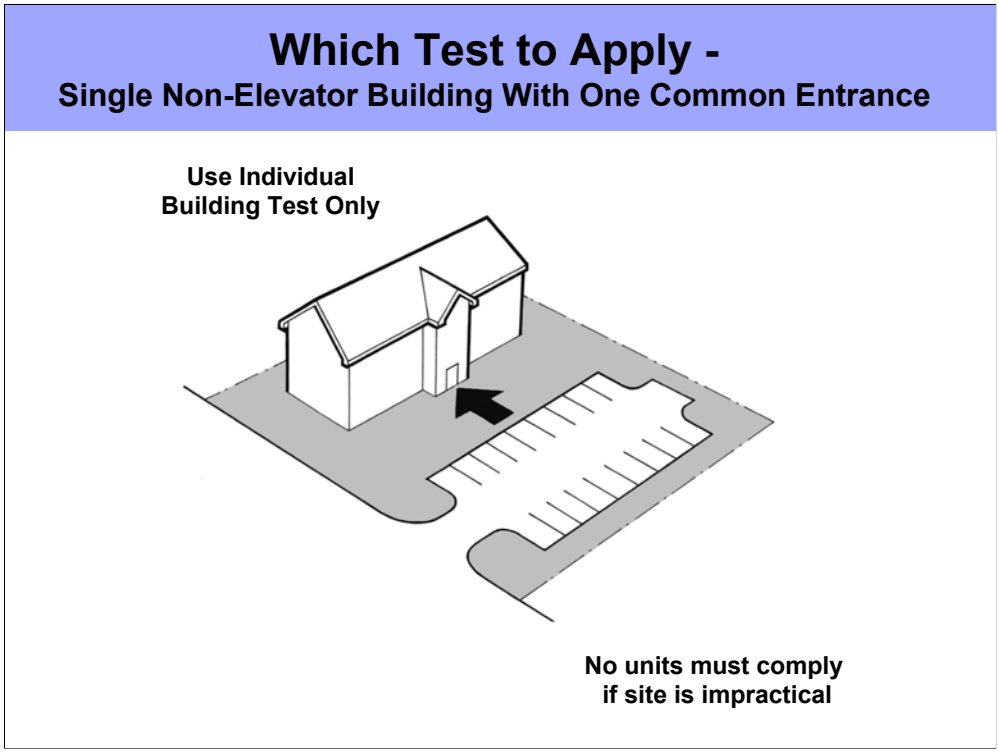


Which Test to Apply -
Buildings with Elevators

For buildings with elevators, neither test can be used. At least one entrance must be accessible. All ground-floor units served by that entrance, as well as all units on floors served by the elevator, must meet the Guidelines.

Notes:

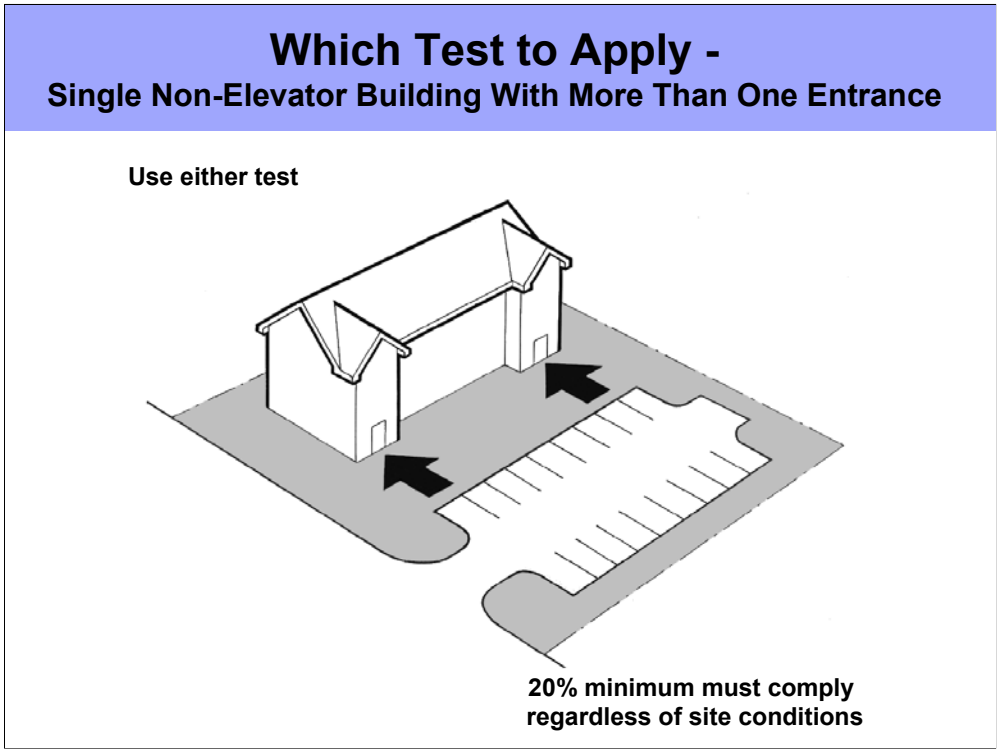


Which Test to Apply -
Single Non-Elevator Building With One Common Entrance

Determination of which test to apply depends upon the type and number of buildings planned for the site.

A site with just one non-elevator building, having only one common entrance into the building, may only be analyzed using the Individual Building Test. If the site is found impractical, no units are required to comply.

Notes:

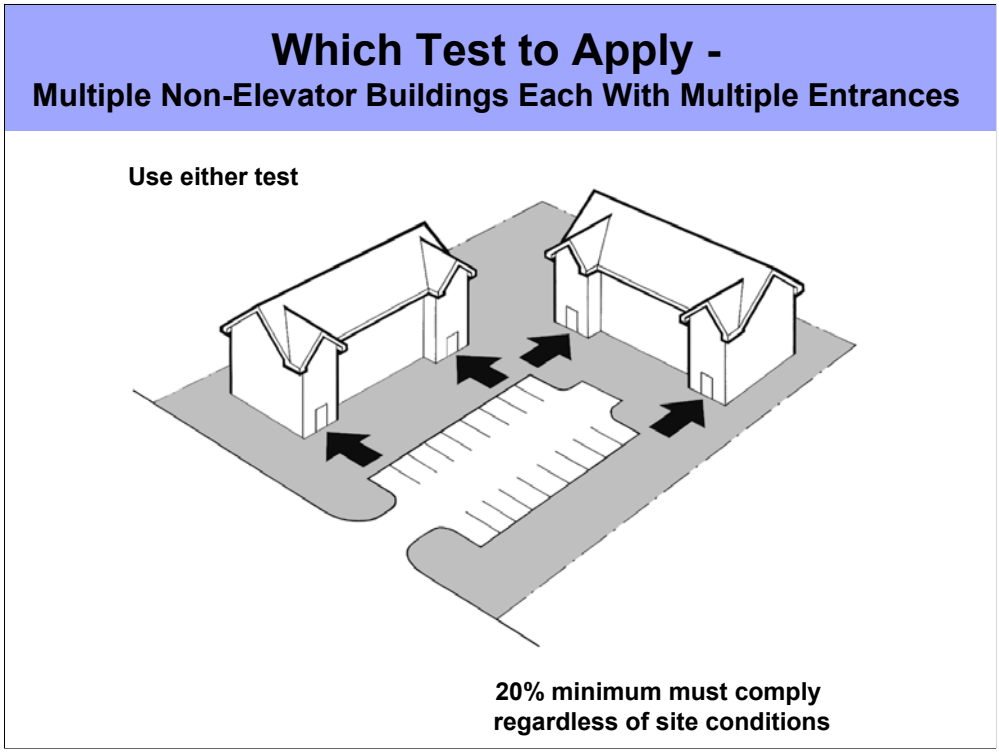


Which Test to Apply -
Single Non-Elevator Building With More Than One Entrance

A site with only one non-elevator building, but with more than one common entrance, may be analyzed using either the Individual Building Test or the Site Analysis Test.

Regardless of which test is used, a minimum of 20% of the planned ground-floor units must be on an accessible route and meet the Guidelines. The 20% minimum is a minimum threshold; in most cases, based on test results, more units would have to be accessible.

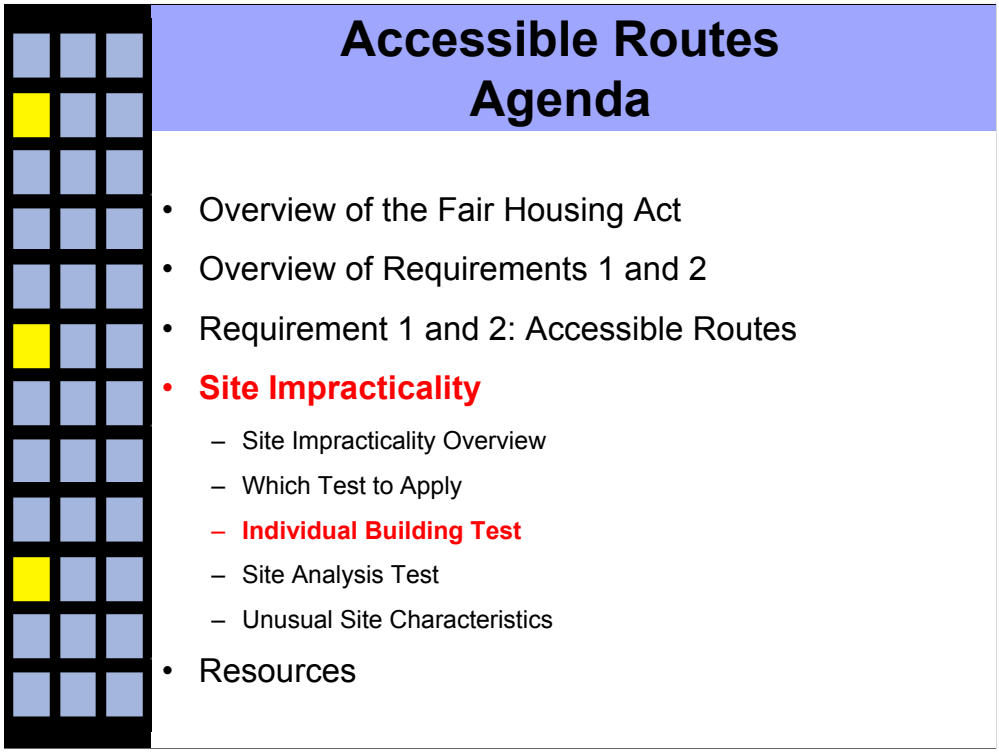
For example, in the illustration above, even if it were impractical to make either entrances accessible, the 20% requirement means one would have to be made accessible and then all ground floor units within the building served by that entrance would be required to be accessible even if that's 100% of the ground floor units.



Which Test to Apply -
Multiple Non-Elevator Buildings Each With Multiple Entrances

A site with several non-elevator buildings may also be analyzed using either test. Again, regardless of which test is used, the minimum 20% of the planned ground-floor units must be on an accessible route and meet the Guidelines. Once again, the 20% is a starting point. After the tests are applied, in most cases, you will find that more units must comply.

Notes: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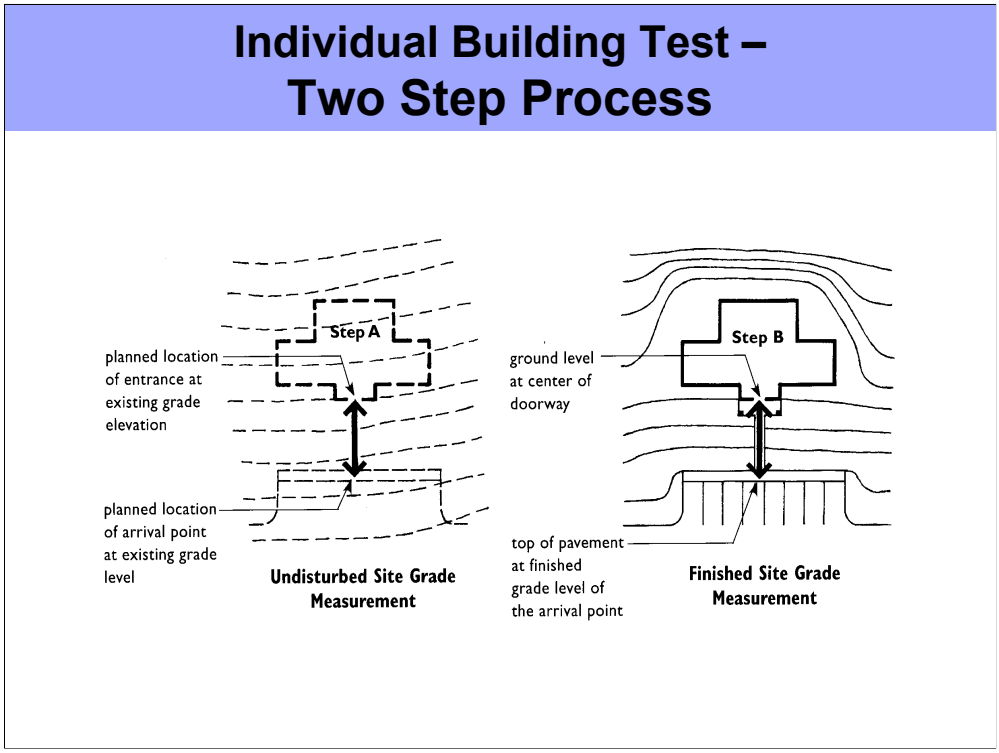


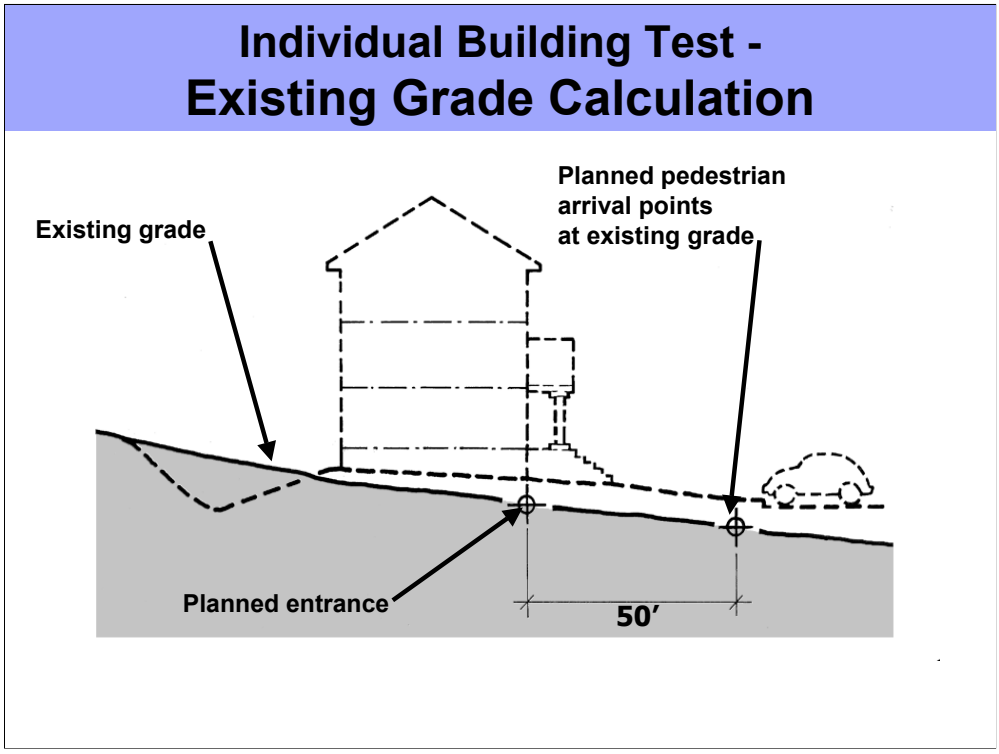
Individual Building Test – Two Step Process

Using the Individual Building Test is a two-step process:

1. The first step calculates the slope of the undisturbed site (existing grade) between the planned entrance and all planned entrances and all arrival points within 50'.

2. The second step calculates the same, but the slopes are measured on the planned finish grade between the planned entrance and all arrival points within 50'.

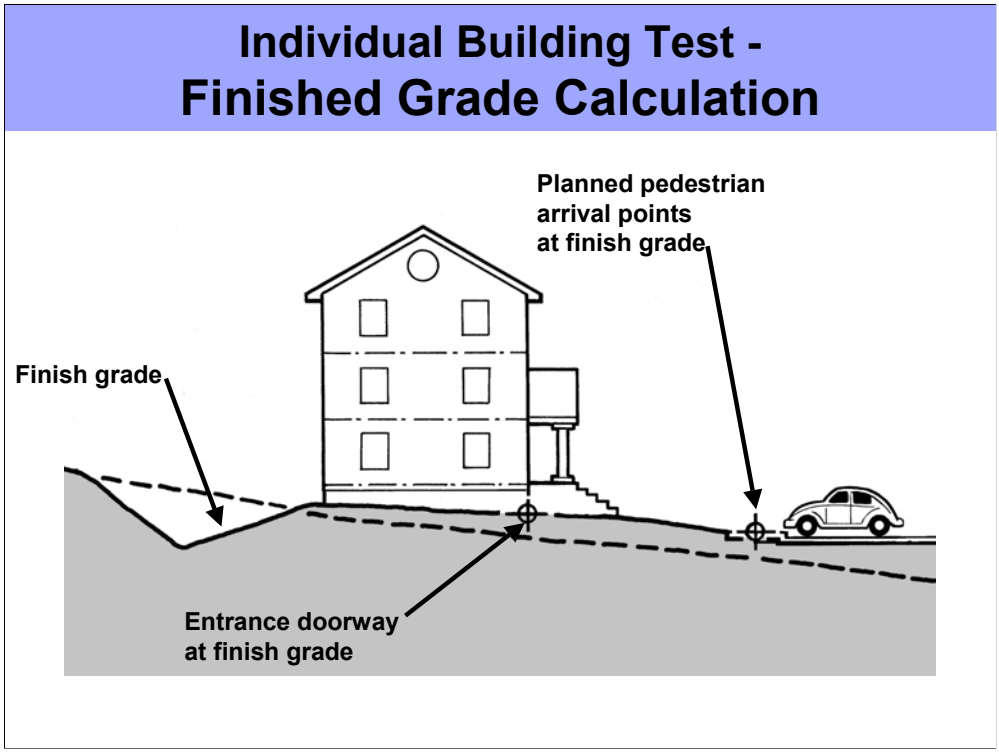
In this two-step process, if the calculated result of both steps is greater than 10%, then an accessible route may be considered too difficult to provide.



Individual Building Test -
Existing Grade Calculation

In step one, the slope of the existing grade elevation must be made from the center of the planned entrance or door to all pedestrian arrival points within 50' or, if none within 50', to the closest one. If the slope exceeds 10%, then proceed to step two.

Notes:

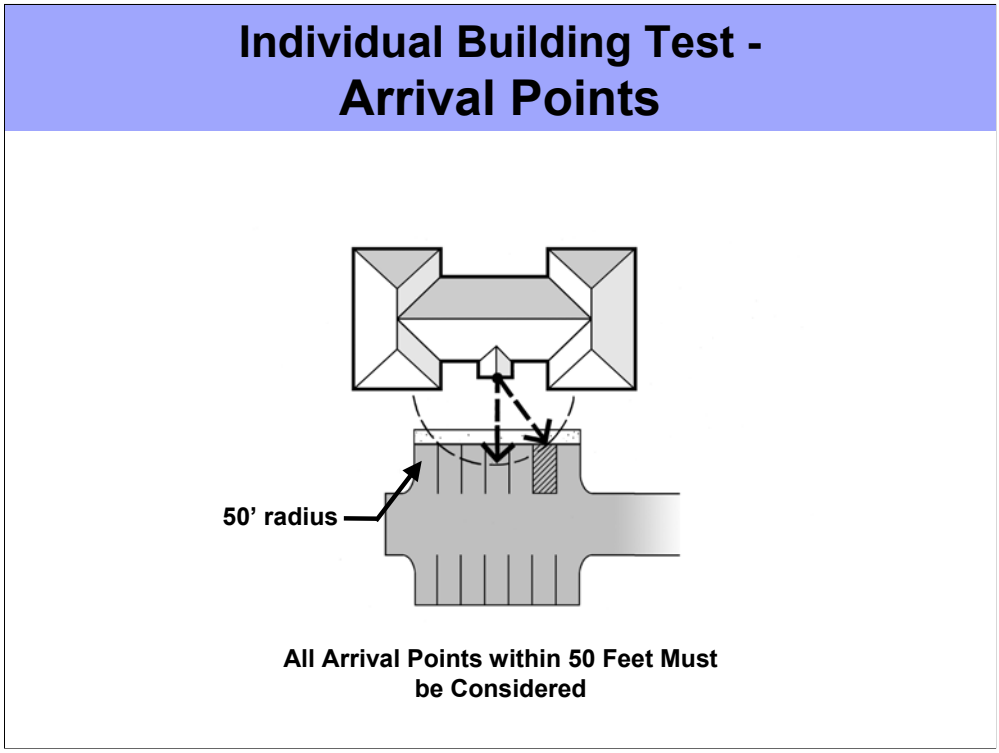


Individual Building Test -
Finished Grade Calculation

In step two, the slope calculation must be made from pedestrian arrival area to the grade or ground elevation at the planned entrance, not the finish floor elevation. At this point in the design process, finish floor elevations established for the sake of preparing a grading plan should be considered preliminary.

If the slope in step two also exceeds 10%, then the entrance may not be covered and designers can set finish floor elevations at whatever height they want. If the slope does not exceed 10%, the building entrance must be made accessible and the units it serves are covered. Designers must then develop strategies to make the entrance accessible.

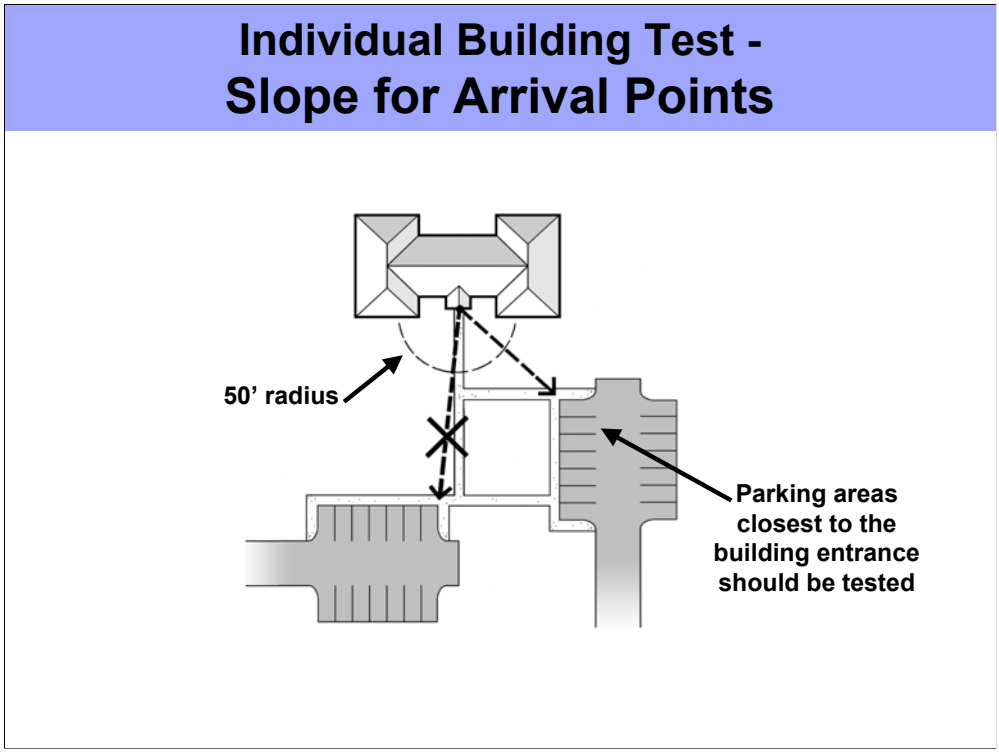
Notes:



Individual Building Test -
Arrival Points

In the Individual Building Test, all pedestrian arrival points within 50' of the center of the planned entrance must be checked.

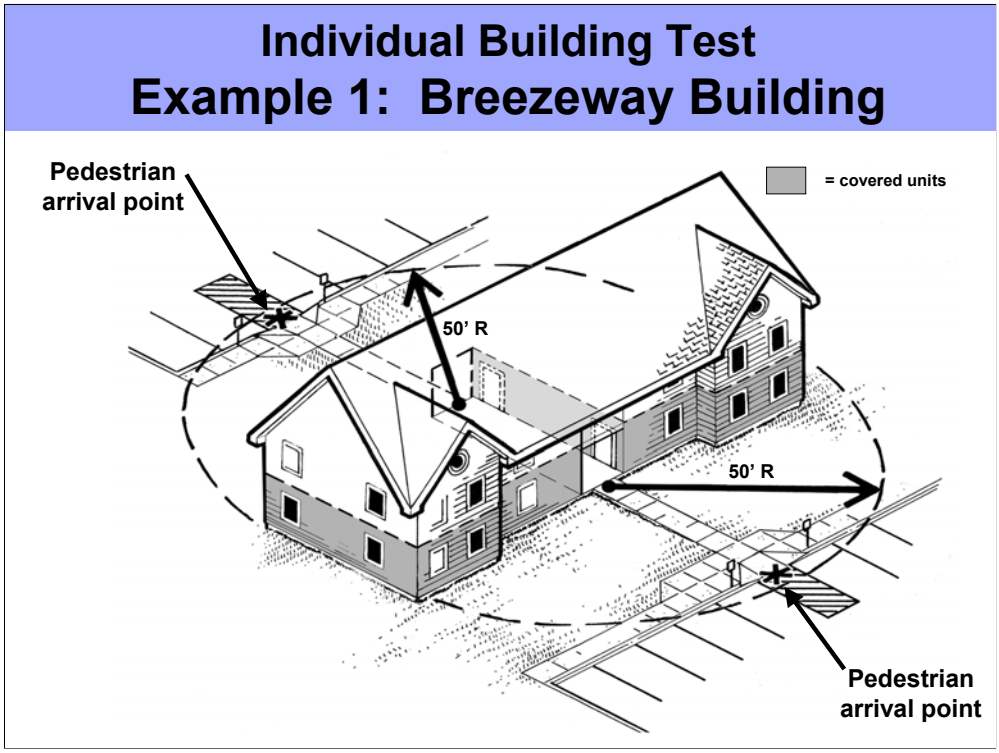
Notes:



Individual Building Test -
Slope for Arrival Points

If there are no vehicular or pedestrian arrival points within 50' of the planned entrance, the slope must be calculated to the closest arrival point beyond 50'.

Notes:



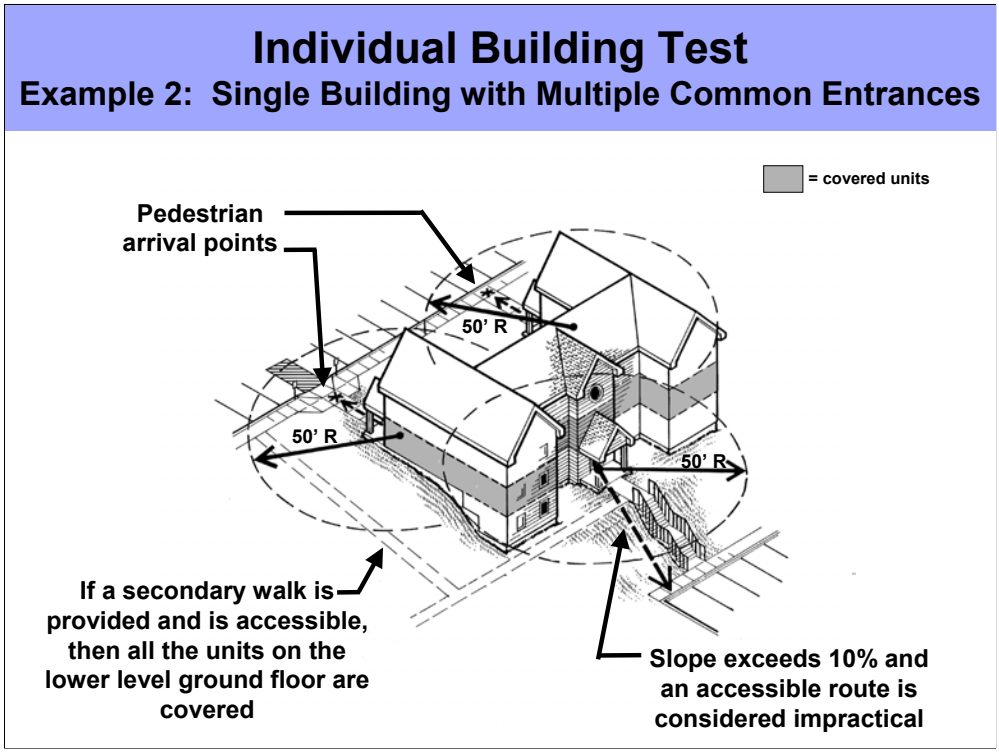
Individual Building Test
Example 1: Breezeway Building

For a breezeway building with two planned entrances and one ground-floor, both entrances must be tested.

At both breezeway entrances, all arrival points within 50', or if none, the closest arrival points of the planned entrance, must be tested.

If the slope between both planned breezeway entrances and the pedestrian arrival area does not exceed 10%, calculated on the undisturbed site and on planned finish grade, then at least one of the entrances must be made accessible.

Notes:



Individual Building Test
Example 2: Single Building with Multiple Common Entrances

For a single building with multiple entrances on two ground floors, all entrances must be tested.

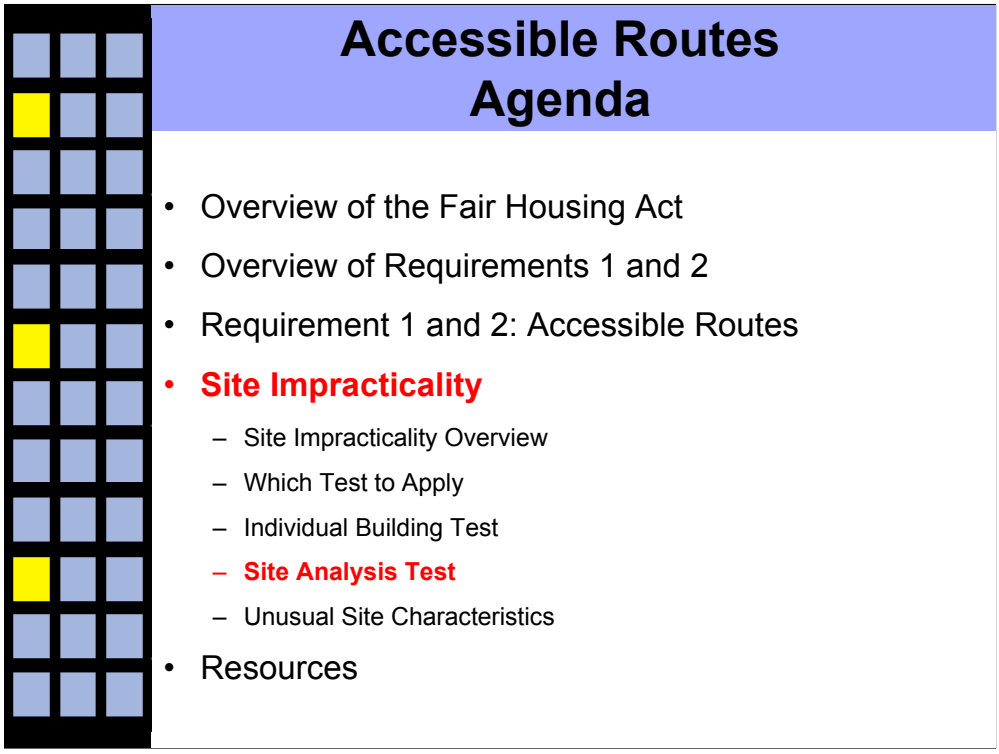
In this illustration there are arrival areas at all entrances. All points within 50' of each entrance, or, if none, the closest arrival point must be tested.

The two upper entrances in this illustration must be accessible because the slopes between the planned entrances and arrival areas do not exceed 10% in step one and two of the test.

The lower ground floor in the illustration has slopes exceeding 10% between the planned entrance and the pedestrian arrival area (parking lot).
In this case, an accessible route would not be required.

However, in this illustration, if a secondary, non-required accessible walkway was provided to the lower entrance from the upper parking area, then the lower entrance would be on an accessible route. All dwellings served by the entrance would be accessible.

Notes: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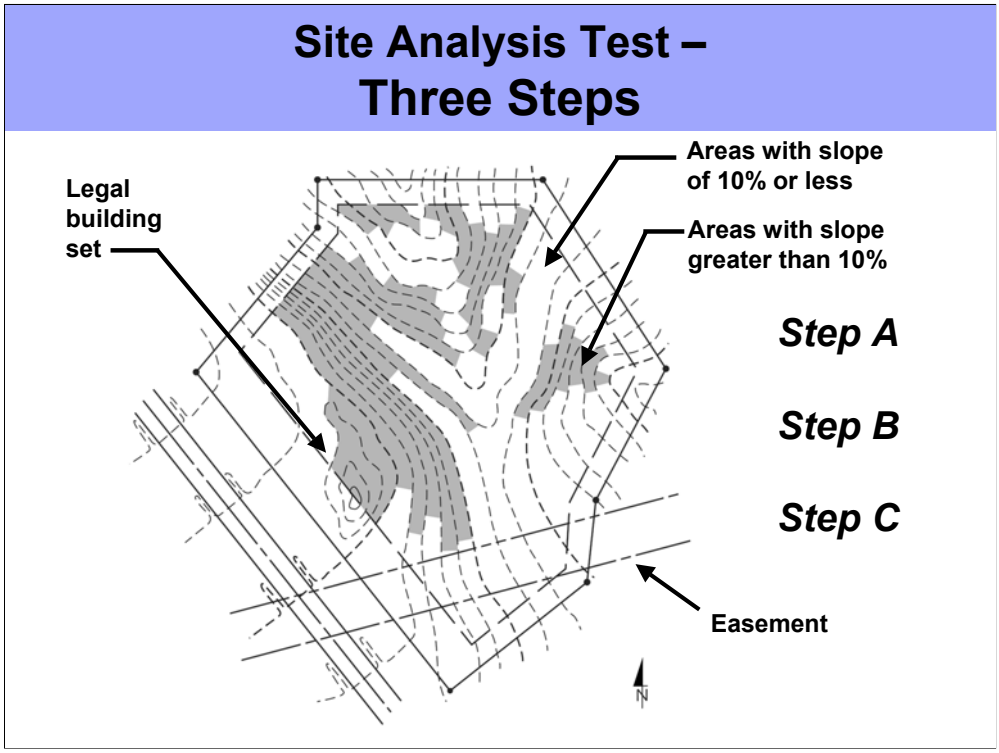
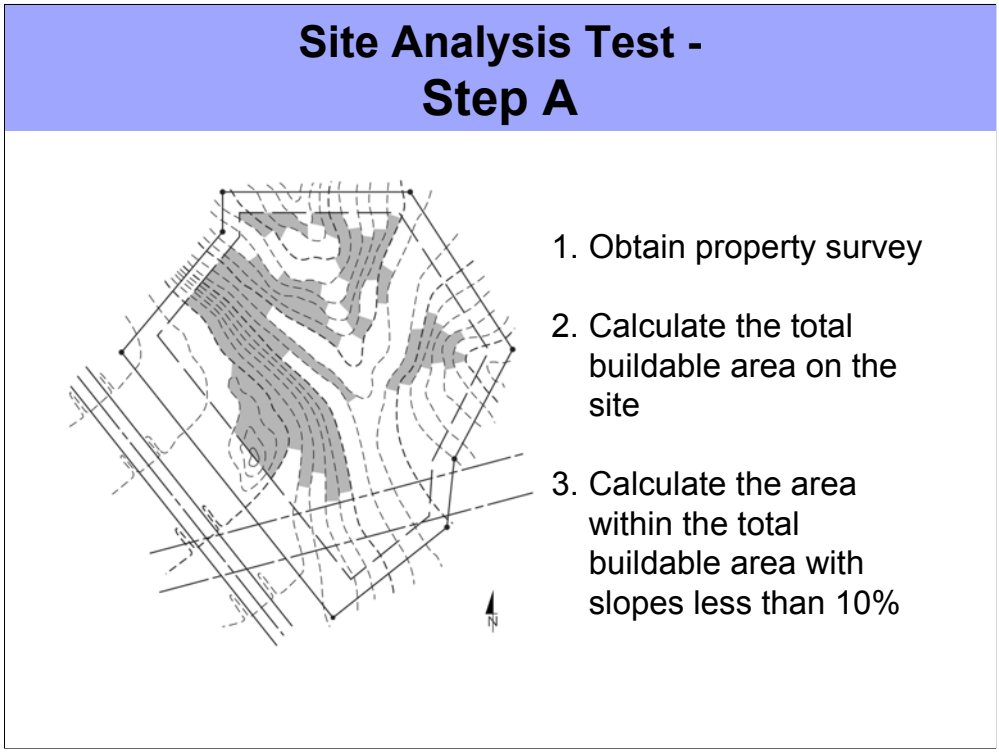


Site Analysis Test - Three Steps

The Site Analysis Test is a three-step test which requires a pre-design analysis of the entire site to determine a minimum number of units that must be on an accessible route and meet the other accessibility requirements in the Guidelines.

The Site Analysis Test also includes a step to analyze the preliminary design to determine if additional units are required to be added to the minimum threshold established in the earlier analysis.

Notes:



Site Analysis Test –
Step A

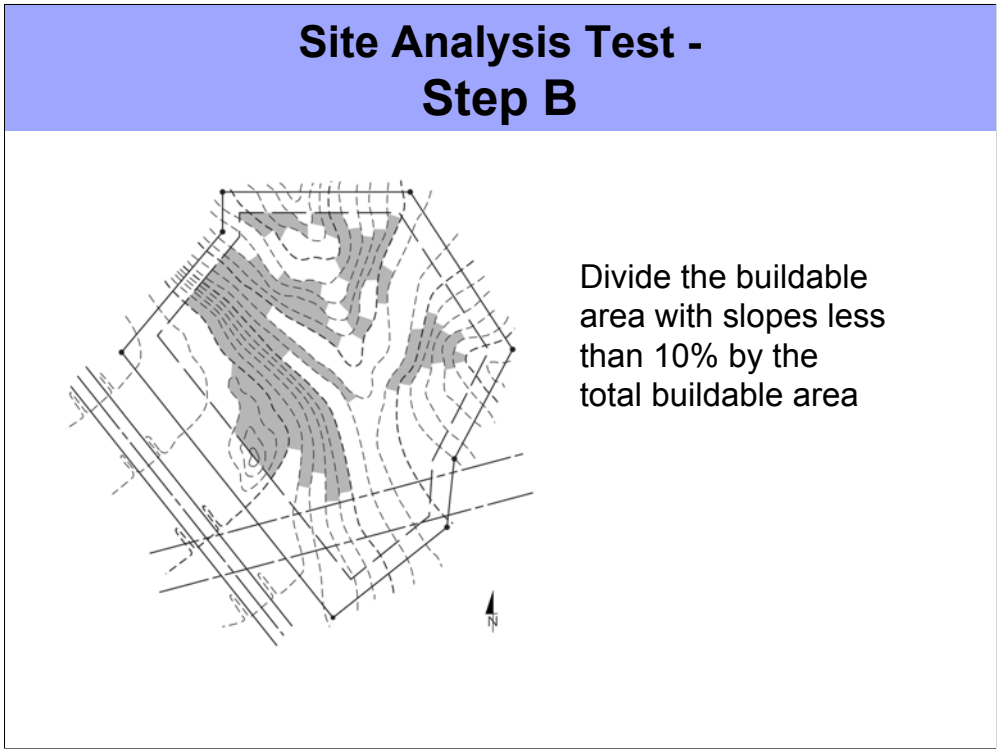
The objective of Step A is to calculate the percentage of total buildable area of the undisturbed site with an existing grade of less than 10% slope.

The steps to accomplish this are:

1. Obtain a property survey of the site. The survey must include existing grades at 2' maximum contour intervals.

2. Calculate the total buildable area on the site, excluding non-buildable areas such as building setbacks, easements, etc.

3. Calculate the area with the total buildable area that has grades with slopes that are less than 10%. The accuracy of the slope analysis must be certified by a professional such as an engineer or surveyor.

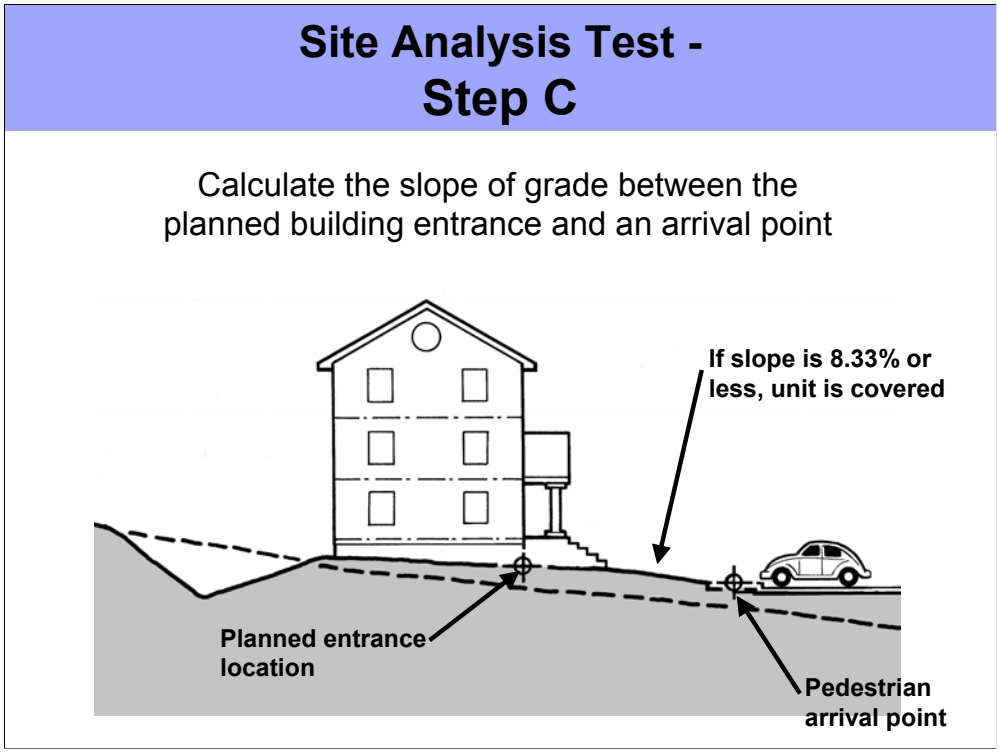


Site Analysis Test –
Step B

In Step B, the minimum number of dwelling units that must comply with accessibility requirements is calculated.

This is done by dividing the total buildable area with a slope less than 10% by the total buildable area.

This is only a preliminary indication of the number of accessible units that must be provided. Designers must proceed with the design process. At a very preliminary layout phase, proceed to Step C of the Site Analysis Test to determine if additional units will be required.



Site Analysis Test –
Step C

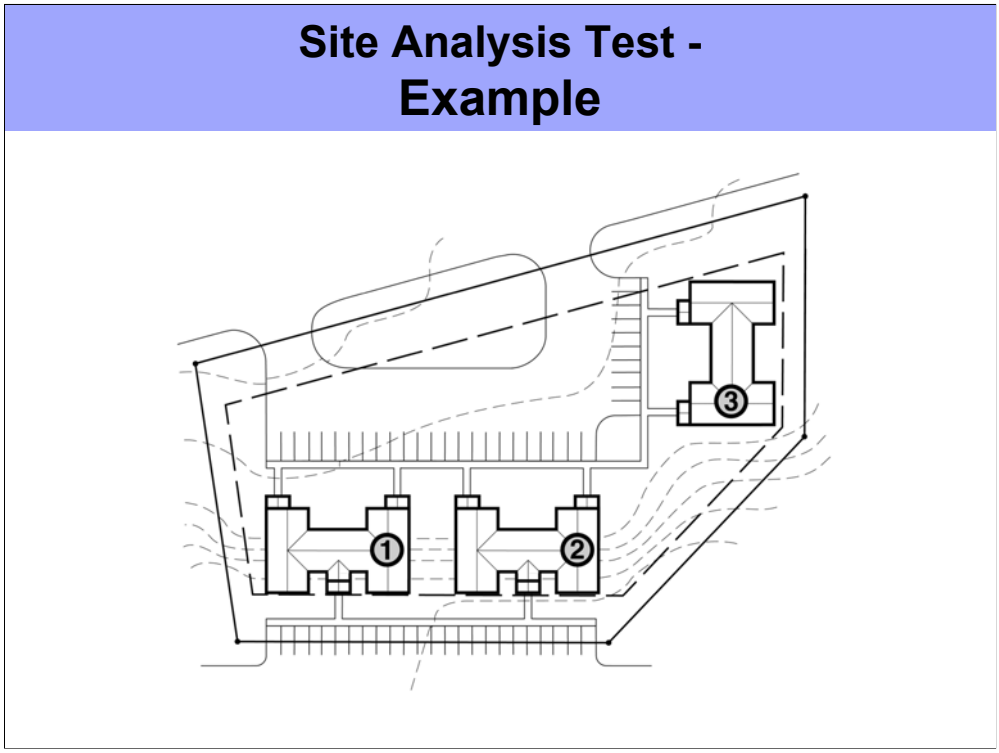
Step C of the Site Analysis Test is similar to the Individual Building Test.

Following preparation of a preliminary site plan (including grading), building and/or unit entrances must be re-examined to determine if they are covered.

This is accomplished by calculating the slope of the grade between the planned building entrance and a pedestrian or vehicular arrival point. If the planned finished grade exceeds 8.33% (1:12), the entrance may be exempt and the units served would not be required to meet the accessibility requirements of the Fair Housing Act.

Although step C in the Guidelines does not specify a distance within which arrival points must be tested, guidance may be obtained by using the specification in the Individual Building Test:

All points within 50’ of the planned entrance, or if none within 50’, the closest one.

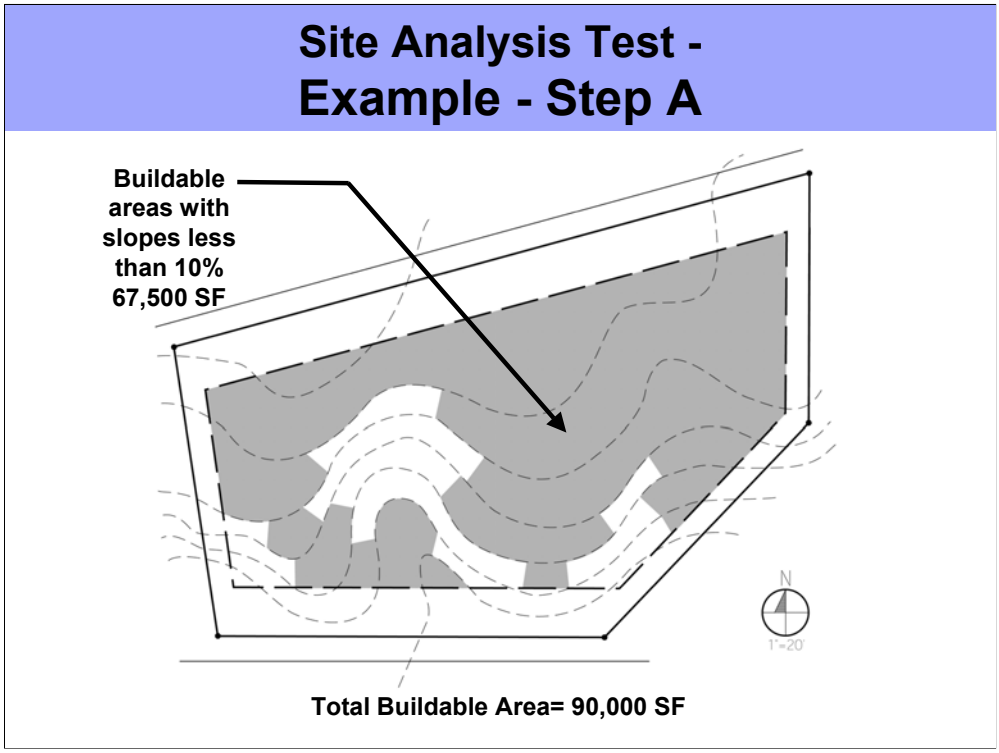


**Site Analysis Test –
Example**

This is an example showing application of the Site Analysis Test.

The illustrated site shows three covered multifamily buildings. Parking areas adjacent to the buildings will serve as pedestrian access to the buildings.

Notes:



**Site Analysis Test -
Example - Step A**

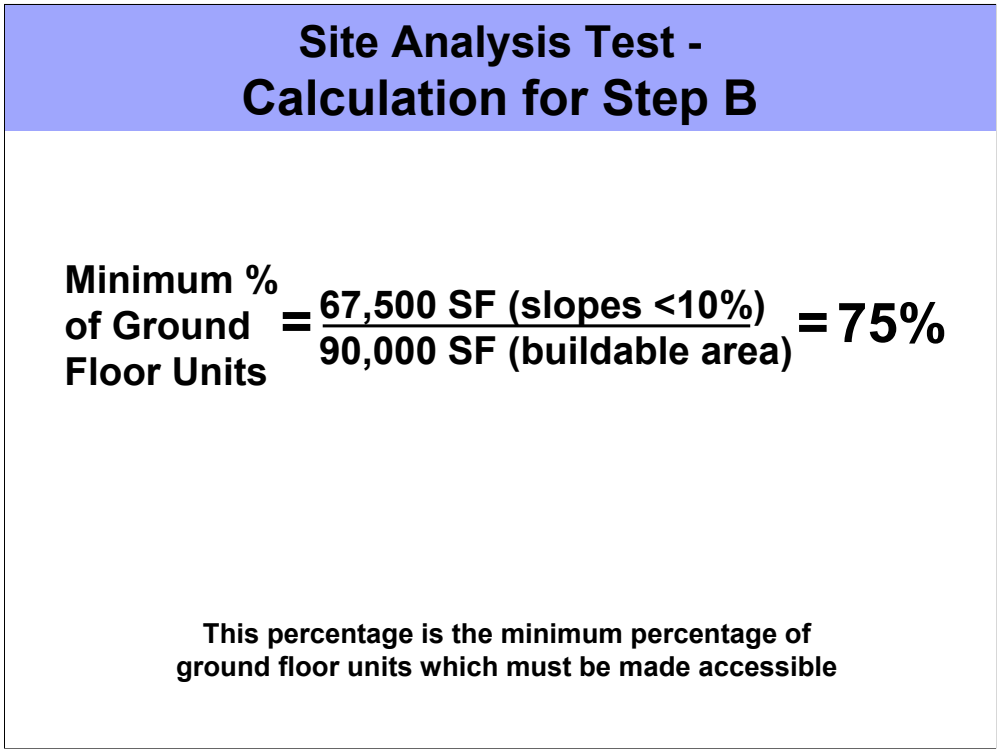
In Step A, a survey of the site is prepared with grade contours shown at intervals of 2' or less.

Restricted areas that reduce buildable area, such as building setbacks in this example, are indicated.

The total buildable area is calculated. In this example, the total buildable area is calculated to be 90,000 square feet.

Lastly, the area within the buildable area of the site with slopes less than 10% is calculated.

In this hypothetical example, the buildable area with slopes less than 10% is calculated to be 67,500 square feet.



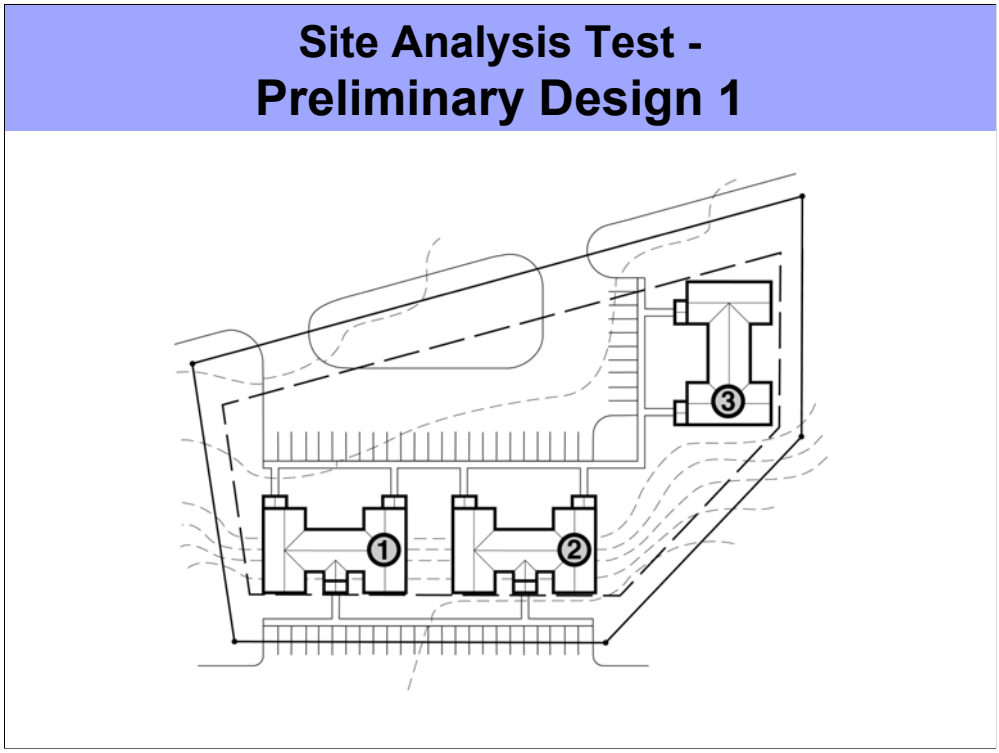
Site Analysis Test –
Calculation for Step B

In Step B the minimum percentage of ground-floor units that must be accessible is calculated by dividing the buildable area with slopes less than 10% by the total buildable area.

In this example, a minimum percentage of ground floor units is calculated to be 75%.

$$\frac{\text{67,500 – slopes < 10\%}}{\text{90,000 buildable area}} = 75\%$$

This percentage is the minimum percentage of dwelling units that are covered. Additional units need to be added based on Step C of the test.



Site Analysis Test -
Preliminary Design 1

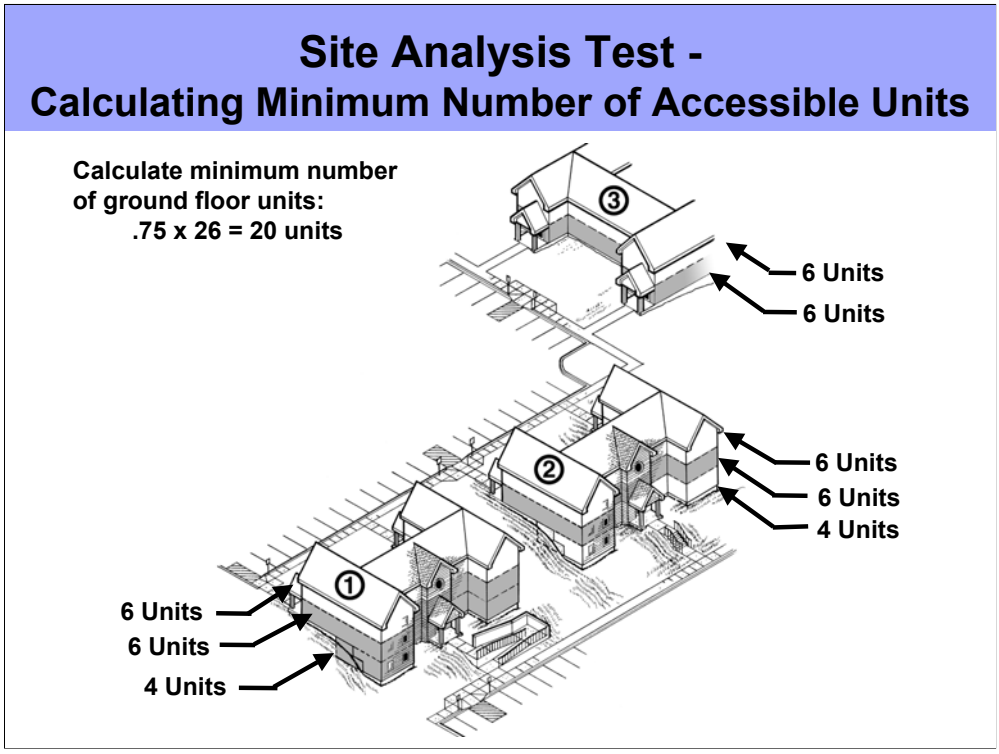
Prior to proceeding to Step C, a preliminary design must be prepared. In this example, necessary levels of detail in the design to carry out Step C include:

1. Building design with layout of dwelling units and building entrances

2. General layout of parking areas

3. A preliminary grading plan

4. Preliminary grade elevations and preliminary finish floor of building levels



Site Analysis Test -
Calculating Minimum Number of Accessible Units

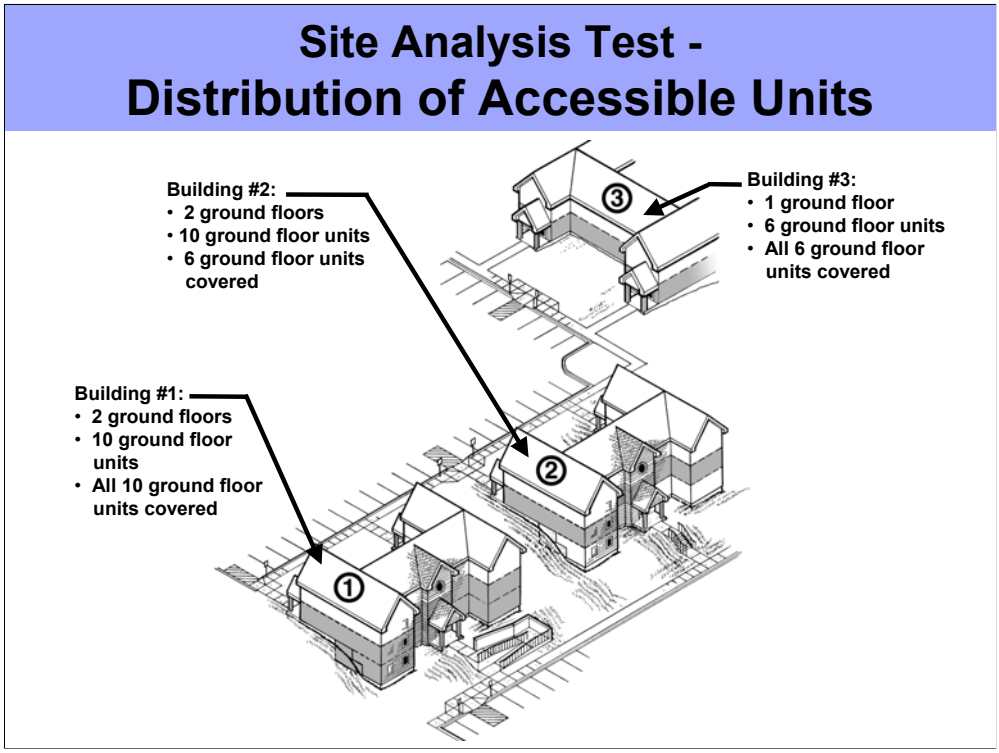
Following execution of a preliminary design, the minimum number of accessible units can be calculated by multiplying the total number of grade level units by 75%.

In this example, there are 26 grade level units. The minimum number of ground-floor units (accessible units) is calculated by multiplying 75% times 26.

The minimum number of ground floor units is:

0.75 x 26 = 20 GFUs

Note that in this example, buildings #1 and #2 have two grade level floors.



Site Analysis Test -
Distribution of Accessible Units

During the preliminary design process the minimum number of accessible units are distributed.

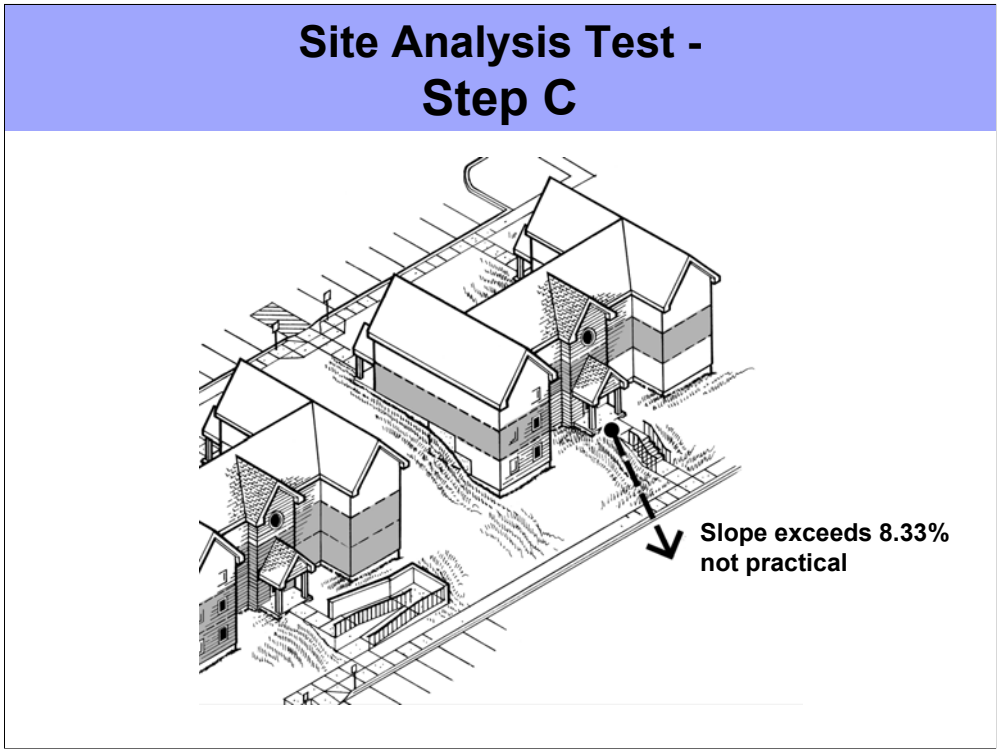
In this example:

1. All 6 of the grade-level units in building #3 are designated accessible.

2. All 6 of the upper grade-level units in building #2 are designated accessible.

3. All 6 of the upper grade-level units in building #1 are designated accessible.

4. To bring the total count of accessible units to 20, the lower grade level of building #1 is designated accessible (a ramp has been added). This floor contains 4 units, served by a common entrance, which brings the total count to 22 units that are made accessible (when the common entrance is made accessible, all units served are covered.)



Site Analysis Test
Step C

The last step is to go back and test the grade difference between the undesignated grade-level units.

If the grade difference between the planned entrance and a pedestrian arrival point is less than 8.33% (1:12), then it is practical to provide an accessible route, and those units served would have to be made accessible.

The measurement of slope must be made at grade level, not from the proposed finish floor level of the entrance being tested.

In this example, the lower level of building #2 is exempt from meeting the accessibility requirement because the grade difference between the planned entrance and the parking area serving that entrance **exceeds** 8.33%.

Notes:

Site Impracticality - Terrain

Experienced designers rarely need to execute all the steps and procedures just discussed in applying both the Individual Building Test and the Site Analysis Test.

Typically, multifamily developments are built on steep sites by cutting large level shelves for the buildings and parking areas.

When this strategy is used, experienced designers will easily recognize that the grade slopes leading from the pedestrian arrival areas to the building entrances will be less than 8.33% and 10%.

Notes:

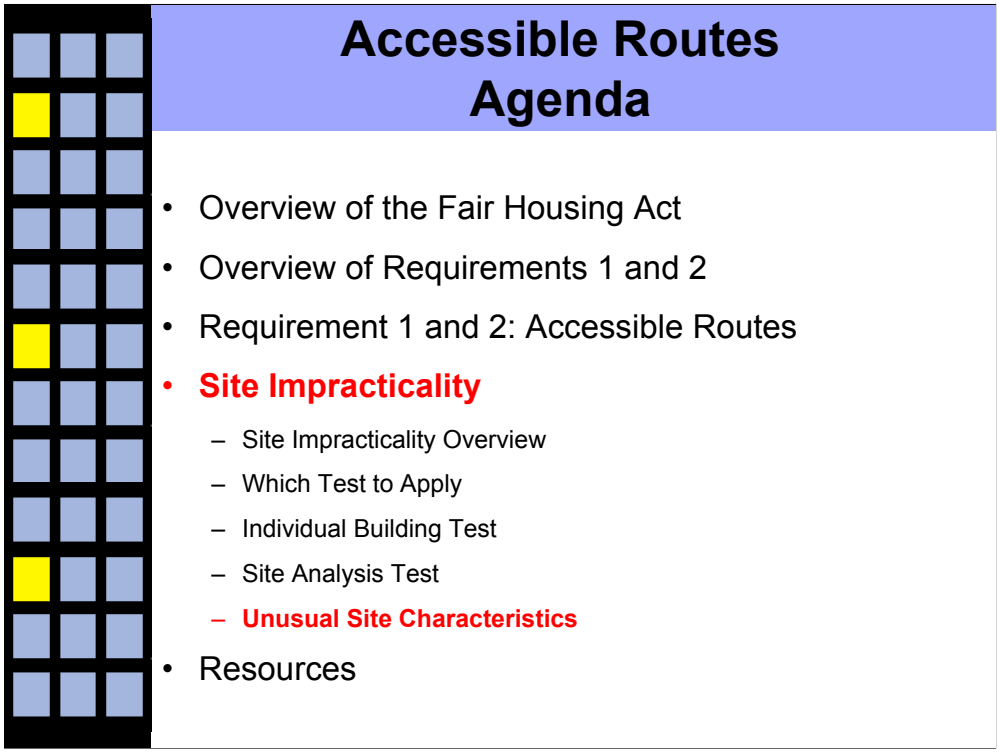
Site Impracticality - Terrain

On such sites, designers can quickly identify building entrances that may be exempt.

In such cases, a quick grade check between planned entrances and arrival areas is all that is needed to verify site impracticality.

However, regardless of which tests or procedures are used, designers and developers must be able to demonstrate and prove claims of site impracticality. Test results and calculations should be made part of the project records.

Notes:

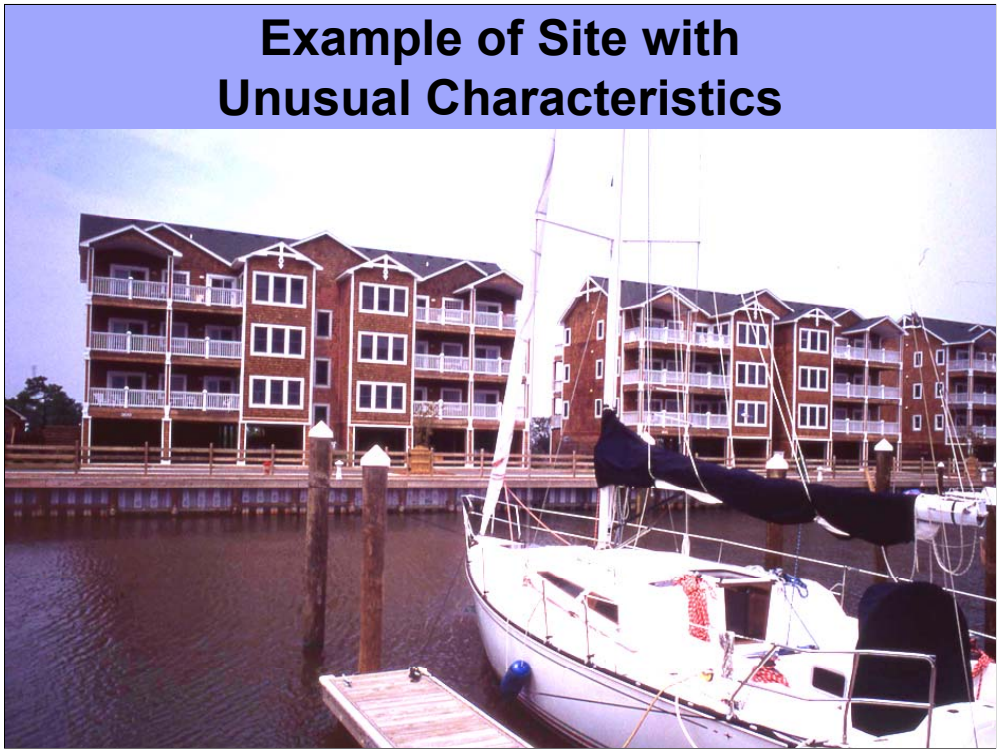

Accessible Routes
Agenda
• Overview of the Fair Housing Act
• Overview of Requirements 1 and 2
• Requirement 1 and 2: Accessible Routes
• Site Impracticality
– Site Impracticality Overview
– Which Test to Apply
– Individual Building Test
– Site Analysis Test
– Unusual Site Characteristics
• Resources

Notes:

Site Impracticality Due to Unusual Characteristics

It may be impractical to provide an accessible route on certain sites subject to laws or codes that specify the elevation of the lowest floor or the lowest structural member of the buildings.

Notes:

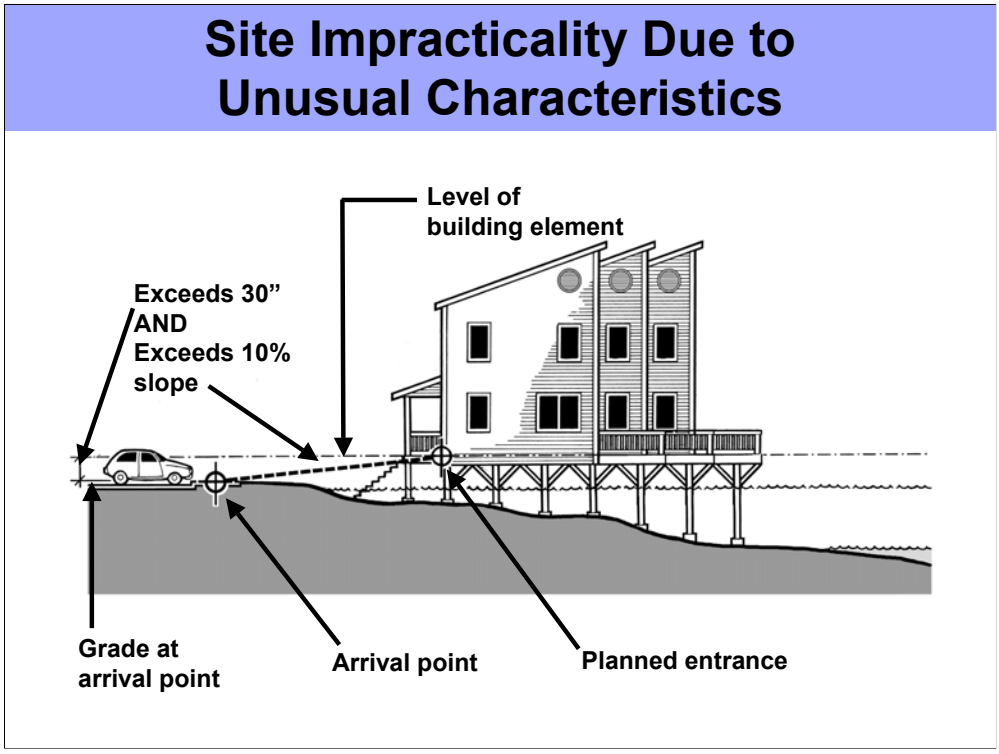


Example of Site with Unusual Characteristics

Examples of such sites are those located in federally designated flood-plain or coastal high-hazard areas. In such locations, buildings are required by law to be raised to a specific level above the base flood elevation.

On sites where these unusual characteristics occur, the guidelines provide a single test to determine if it is impractical to provide an accessible route.

Notes:



Site Impracticality Due to Unusual Characteristics

On a site with unusual characteristics, it is impractical to provide an accessible route to a building entrance only if both the following conditions occur:

1. There is more than 30” difference in grade between all planned pedestrian arrival points within 50 feet, or if none, the closest one, and the building element specified in the local code or flood plain regulations (finish floor or other building element), **and**

2. The slope between lowest allowed elevation of the planned entrance and pedestrian arrival points exceeds 10%.

Unlike the two tests for steep terrain, when the finish floor elevation is cited in the regulation, the measurement of slope is made between the arrival point and the finish floor level of the planned entrance.

Notes:

Exercise

Exercise Objective:

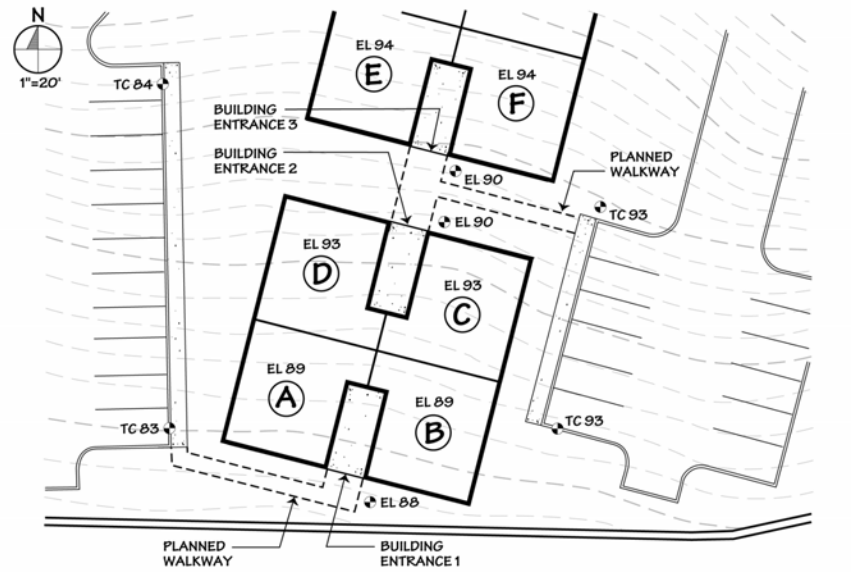
The objective of this exercise is to:

- Test your understanding of the basic terms and concepts presented in this module
- Test your understanding of some of the key concepts of the Site Impracticality provisions in Requirement 1
- Provide you basic experience in applying the site impracticality test to an actual site plan

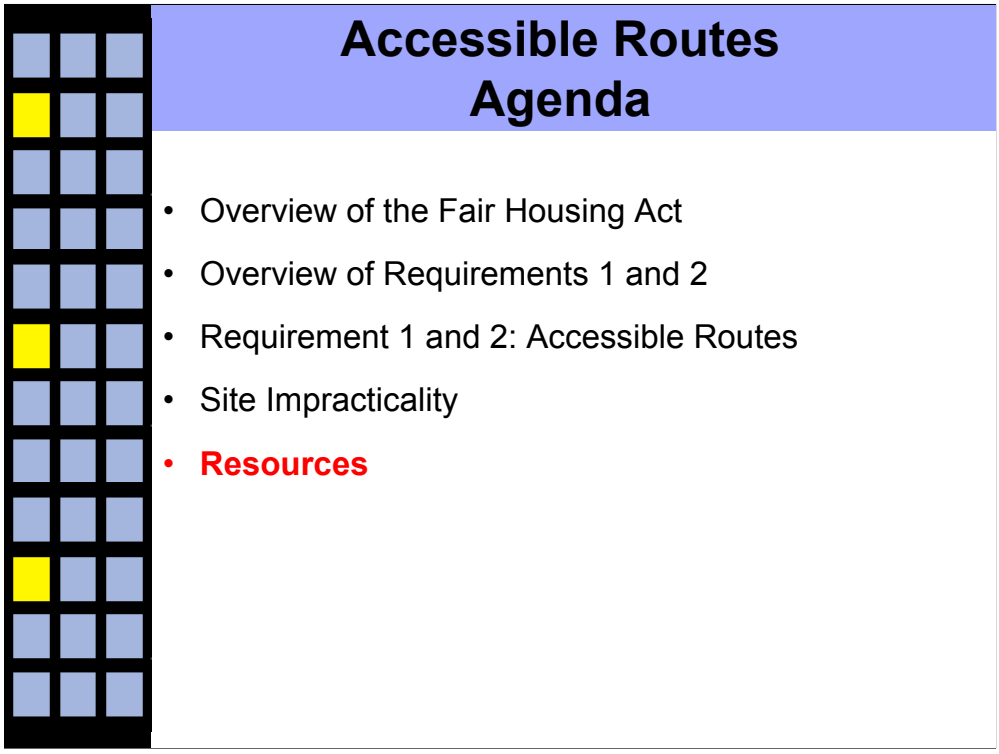
Exercise Assignment:

Review the site plan on the following slide, apply Step 3 of the Site Analysis Test and identify if there are any building entrances that are exempt.

Exercise - Site Impracticality



Exercise Completion:


Accessible Routes
Agenda
• Overview of the Fair Housing Act
• Overview of Requirements 1 and 2
• Requirement 1 and 2: Accessible Routes
• Site Impracticality
• Resources

Notes:

Fair Housing Accessibility FIRST

Fair Housing Accessibility **FIRST**
Information Line
1-888-341-7781 V/TTY

Fair Housing Accessibility **FIRST**
Website
www.FairHousingFIRST.org

Notes:

FAIR HOUSING ACCESSIBILITY FIRST

Comprehensive Training Curriculum

Course Title	Time (hours)
Fair Housing Act Accessibility Requirements Overview	1 (Short) or 4 (Long)
Design and Construction Requirements of the Fair Housing Act: Technical Overview	3
Disability Rights Laws	1.5
Fair Housing Act Enforcement	1.5
Strategies for Compliant Kitchens	1.5
Strategies for Compliant Bathrooms	1.5
Accessible Routes	1.5
Accessible Public and Common Use Areas	1.5
Common Design and Construction Violations and Solutions	1.5
Making Housing Accessible Through Accommodations and Modifications	1.5

www.FairHousingFIRST.org
(888) 341-7781

Fair Housing Act and Related Standards

Standard	Where to Obtain
Fair Housing Act as Amended (Title VIII of the Civil Rights Act)	www.FairHousingFIRST.org (888) 341-7781 (V/TTY)
Fair Housing Act Guidelines*	www.FairHousingFIRST.org (888) 341-7781 (V/TTY)
Fair Housing Act Design Manual*	Disseminated at training www.huduser.org (800) 245-2691 TDD: (800) 483-2209
International Building Code*	www.intlcode.org (703) 931-4533
ANSI A117.1 (1986)*	www.intlcode.org (703) 931-4533
CABO/ANSI A117.1 (1992)*	www.bocai.org (800) 214-4321
ICC/ANSI A117.1 (1998)*	www.intlcode.org (703) 931-4533
Code Requirements for Housing Accessibility 2000 (CRHA)*	www.bocai.org (800) 214-4321
Section 504 of the Rehabilitation Act	www.hudclips.org (301) 519-5395
Uniform Federal Accessibility Standards	www.access-board.gov (800) 872-2253, TTY: (800) 872-2253
Architectural Barriers Act of 1968	www.access-board.gov (800) 872-2253, TTY: (800) 872-2253
Americans with Disabilities Act of 1991,Title II and Title III	www.access-board.gov (800) 872-2253, TTY: (800) 872-2253
ADA Accessibility Guidelines	www.access-board.gov (800) 872-2253, TTY: (800) 872-2253

**Denotes HUD Safe Harbor*

Publications

Listed in alphabetical order with the following designations based on topic.

C – Code; D – Design; L – Legal; DA – Disability Advocacy

Type	Resource Name	Description	Where to Obtain
D	**Accessible Cabinetry**	Describes state-of-the-art cabinetry designed to facilitate use by people with disabilities.	www.design.ncsu.edu/cud/ (800) 647-6777 (voice or TTY)
D	**Accessible Environments: Toward Universal Design**	Overview of the concept of universal design in everyday environments. Contains design illustrations and history of the disability rights movement.	www.design.ncsu.edu/cud/ (800) 647-6777 (voice or TTY)
D	**Accessible Plumbing**	Describes state-of-the-art in accessible plumbing fixtures and accessories.	www.design.ncsu.edu/cud/ (800) 647-6777 (voice or TTY)
D	**Accessible Stock House Plans Catalog**	Contains floor plans and perspectives for six accessible homes.	www.design.ncsu.edu/cud/ (800) 647-6777 (voice or TTY)
D	**A Consumer's Guide to Home Adaptation**	Includes worksheets for evaluating needs in the home, illustrated construction plans for grab bars, ramps, and other accessible elements, and resource listings for products.	www.design.ncsu.edu/cud/ (800) 647-6777 (voice or TTY)
C	**HUD Review of Model Building Codes Final Report**		www.hud.gov/offices/fheo/disabilities/modelcodes/
DA	**New Mobility Magazine**		www.newmobility.com
L	**The New Fair Multifamily Housing: A Design Primer to Assist in Understanding the Accessibility Guidelines of the FHAct**	Provides a basic understanding of the accessibility requirements of the FHAct. Also includes illustrated solutions and examples from existing projects.	www.design.ncsu.edu/cud/ (800) 647-6777 (voice or TTY)
L	**Rights and Responsibilities of Tenants and Landlords under the Fair Housing Amendments Act**	Outlines the rights and responsibilities of tenants with disabilities and landlords under the FHAct.	www.design.ncsu.edu/cud/ (800) 647-6777 (voice or TTY)
D	**Tenant's Guide to Apartment Modifications: An Idea Source Pamphlet to Simple, Low-cost Modifications to Increase Accessibility in Apartments**	Presents illustrated ideas for low-cost modification that are commonly made to rental dwellings.	www.design.ncsu.edu/cud/ (800) 647-6777 (voice or TTY)

Websites and Organizations

Listed in alphabetical order with the following designations based on topic.
C – Code; D – Design; DA – Disability Advocacy; G – Government; L – Legal; T – Trade ; O – Other

Type	Organization	URL
O	**American Association of Retired Persons**	www.aarp.org
DA	**American Association of People with Disabilities**	www.aapd.org
G	**Access Board**	www.access-board.gov
C	**Adaptive Environments**	www.adaptenv.org
DA	**American Association of People with Disabilities**	www.aapd-dc.org
T	**American Bankers Association**	www.aba.com
T	**American Bar Association**	www.abanet.org
DA	**American Disabled for Attendant Programs Today**	www.adapt.org
T	**American Institute of Architects**	www.aia.org
DA	**American Seniors Housing Association**	www.seniorshousing.org
T	**American Society of Civil Engineers**	www.asce.org
T	**American Society of Interior Designers**	www.asid.org
L	**Bazelon Center for Mental Health Law**	www.bazelon.org
D	**Bob Vila**	www.bobvila.com - special features
D	**Center for Inclusive Design and Environmental Access**	www.ap.buffalo.edu
D	**Center for Universal Design**	www.design.ncsu.edu/cud/index.html
G	**Centers for Medicare and Medicaid Services**	www.cmms.gov
DA	**Consortium for Citizens with Disabilities**	www.c-c-d.org
D,L	**Cornucopia of Disability Information (CODI)**	www.codi.buffalo.edu
G	**Department of Agriculture**	www.usda.gov
G	**Department of Justice**	www.usdoj.gov
G	**Department of Treasury**	www.treasury.gov
DA	**Disability Rights Action Coalition for Housing**	www.libertyresources.org/housing/nac.html
DA	**Eastern Paralyzed Veterans Association**	www.epva.org
T	**Institute for Real Estate Management**	www.irem.org
C	**International Code Council**	www.intlcode.org
L	**The John Marshall Law School Fair Housing Legal Support Center**	http://law170.jmls.edu/
D	**NAHB Research Center**	www.nahbrc.org
T	**National Affordable Housing Mgmt. Assoc.**	www.nahma.org
T	**National Apartment Association**	www.naahq.org
T	**National Association of Home Builders**	www.nahb.org
T	**National Association of Realtors**	www.nar.realtor.com
T, D	**National Association of the Remodeling Industries**	www.nari.org
G	**National Council on Disability**	www.ncd.gov
C	**National Conference of States on Building Codes and Standards (NCSBCS)**	www.ncsbcs.org
DA, L	**National Fair Housing Advocate Online**	www.fairhousing.com
DA	**National Fair Housing Alliance**	www.nationalfairhousing.org
D	**National Kitchen and Bath Association**	www.nkba.org
T	**National Low Income Housing Coalition**	www.nlihc.org
T	**National Multi Housing Council**	www.nmhc.org
DA	**National Organization on Disability**	www.nod.org
D, DA	**National Resource Center on Supportive Housing and Home Modification**	www.homemods.org
DA	**Paralyzed Veterans of America**	www.pva.org
D	**Technical Assistance Collaborative**	www.toolbase.org
DA	**Wemedia**	www.wemedia.com
DA	**World Institute on Disability**	www.wid.org