



THE METRO HOUSING TRUST FUND

Universal Design Checklist

The Barnes Fund requires units to be accessible by all people while maintaining aesthetics and affordability. **At least 10** of the following criteria must be utilized in each unit and/or common area where applicable. If only applicable to certain units, please specify within the narrative or in an extra attachment.

Routes

Accessible Route

An accessible route shall consist of a minimum 36" wide continuous, stable, firm and slip-resistant surface, free of obstructions and changes in level greater than a 1/4" vertical. Running slopes shall not exceed 1:20 and cross slopes shall not exceed 1:50. A minimum 60"x60" passing space must be provided at reasonable intervals not to exceed 200'. Routes requiring 180° turns must have a clear width of 60" during the turn. Cross walks must be striped and may not travel directly behind parking spaces.

Accessible Parking

Where parking is provided for all residents, one accessible parking space on an accessible route shall be provided for each qualifying UD unit. Accessible spaces must be sufficiently dispersed to serve each qualifying unit. Van accessible spaces required for public accommodation shall not count towards the number of accessible spaces required for qualifying units; or where parking is provided for only a portion of residents, a minimum 5% of off-street parking must be accessible spaces. Accessible spaces must be sufficiently dispersed to serve qualifying units and must be located on an accessible route. Van accessible spaces required for public accommodation shall not count towards the 5% requirement.

Garbage Collection

Each qualifying unit shall be located on an accessible route that leads to the resident garbage drop off area. Compactor controls and garbage shoots/dumpster openings shall be within the reach range. Residents in qualifying units should not rely on property management to directly pick up their trash unless this amenity is provided to all residents.

□ **Common Spaces**

Each qualifying unit shall be located on an accessible route which allows pedestrian access to the leasing office, community room, laundry facility, mailboxes and public transportation pick up areas if available to the facility.

□ **Curb Cuts**

The minimum width of a curb ramp landing shall be 60" exclusive of flared sides or the running slope. Flared side slopes shall not exceed 1:12. When possible, running slopes should not exceed 1:20.

□ **Ramps**

In cases where topography and space limitations create the need for a ramp, running slopes shall not exceed 1:12. If a ramp rise is greater than 6" or if the horizontal projection is greater than 72", handrails must be provided on both sides. Ramps shall be constructed of concrete, brick, or similar cementitious/slip-resistant materials. If a ramp is used, integrate it into the design.

Movement

□ **Exterior Walkways**

All existing exterior walkways on an accessible route shall be a minimum of 36" wide. New exterior walkways shall be a minimum of 48" wide. Curb cuts shall be required to allow access to accessible areas. Walkways shall be constructed of concrete or similar cementitious materials with a slip-resistant surface free of any obstructions and changes in level, with a cross slope not exceeding 1:50 and a running slope not exceeding 1:20.

□ **Interior Passageways**

Interior passageways shall have a minimum 42" clear width. A minimum 36" clear width between vertical surfaces is acceptable when traveling less than 36".

□ **Level Space at Entry Ways**

Unit entryways shall have a minimum 60"X60" clear level floor space at both the interior and exterior side of the door. A maximum 1:50 slope is permitted at the exterior side of doors to allow water shed. Provide a built-in shelf, bench or table with clear knee space below located outside the door. This provides space to put packages while opening doors.

Clear Space on Pull Side of All Doors

Doors shall have a clear floor space that extends a minimum 18" past the latch on the pull side of the door.

Interior Passage Doorways

All interior passage doorways between rooms deeper than 24" shall have a minimum clear opening of not less than 32" with a threshold level change not exceeding 1/2" (maximum 1/4" vertical rise + 1/4" 1:2 slope).

Exterior Doorways and Unit Entry

All exterior and unit entry doors shall be no less than 36" wide with a threshold level change not exceeding 1/2" (maximum 1/4" vertical rise + 1/4" 1:2 slope).

Full-Length Sidelights, Windows in Door, and/or Windows Nearby

Allows all residents, including children and people using wheelchairs, to see who is at the door before opening it.

Access

Access to all common areas from the qualifying unit via an accessible pedestrian route.

Approach

Operation

Controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate controls shall be no greater than 5 lbs.

Door Hardware

All doors shall have lever handles. All privacy locksets shall be push-button type. Thumb-turn deadbolts are acceptable.

Plumbing Fixtures

All plumbing fixtures shall be lever type.

Kitchen

Sink

Each qualifying unit shall have a rear drain sink with drainpipes concealed behind a removable 30" wide concealment panel or removable sink base. Concealment panel shall comply with [Uniform Federal Accessibility Standards \(UFAS\)](#) for knee and toe clearances. If a sink base is provided, it shall be a minimum of 30" wide and easily removable using only a screwdriver. The kitchen floor finish must extend under the removable cabinet, the wall behind the cabinet must be finished, and a baseboard matching that installed in other areas of the dwelling unit shall be permanently installed behind the cabinet.

Multiple Height Work Surfaces

All qualifying units shall have multiple height work surfaces including at least one at 30" above the finished floor such that a person in a sitting position can work comfortably. The surface must be a minimum of 24" wide x 20" deep and cannot be portable. Pull-out type boards are acceptable, but must carry a minimum 50 lb. load

Base Cabinets

Each kitchen shall provide a minimum of one base cabinet, 15" wide or greater, with top drawer available for utensils.

Extra Floor Space

Provide a full 60", unencumbered turning radius within the kitchen boundary of each qualifying unit.

Roll-Under Range

Provide a drop in range in each qualifying unit affording the user the ability to roll under with unobstructed clear floor space. Knee space shall be insulated or otherwise protected on the exposed contact surfaces to prevent burns, abrasions, or electrical shock.

Cabinet Hardware

All cabinetry in a qualifying unit shall have D-type pull handles or touch latches such that a person with limited dexterity may operate the cabinetry easily.

Full Extension Drawers and Pull-out Shelves

All base cabinetry drawers in a qualifying unit shall be full extension. In addition, a

minimum of one base cabinet, 24" wide or greater, shall have high/low pull out shelving; A 24" wide pantry cabinet with at least two pull out shelves below 36" above finish floor is also acceptable.

Controls

Front mounted controls on all appliances provided.

Shelving

Provide adjustable height shelves in all wall cabinets.

Countertops

Provide stretches of continuous countertops particularly between refrigerator, sink, and stove top. This allows sliding of heavy items and easy, one level food flow.

Refrigerators

Provide side by side refrigerators with pull out shelving (allows easier reach) OR undercounter or drawer type refrigerators installed on raised platforms.

Dishwasher

Dishwasher raised on a platform or drawer unit.

Bathroom

Bathing Areas

Each qualifying unit having two or more full bathrooms shall have one step-in shower with a curb height between 2"-4".

Roll-in Showers

At least 1/2 of the qualifying units with two or more full bathrooms shall have one roll-in showers with a level change no greater than 1/2" - (maximum 1/4" vertical rise + 1/4" 1:2 slope). Roll-in showers for new construction shall have a clear inside dimension of 60" minimum in width and 36" minimum in depth. Roll-in showers for renovations shall have a clear inside dimension of 60" minimum in width and 30" minimum in depth.

Shower Fixtures

All step-in and roll-in showers shall contain both a handheld shower and a fixed shower head. Handheld showers controls and diverter shall be located on the rear wall between

38" and 48" from the floor, and 27" maximum from the end wall. Handheld showers shall have a minimum 60" hose, a slide bar attachment and a locking mechanism operable with a closed fist and should be located no more than 27" from the end wall. The fixed shower head shall be installed at the standard height and standard location. The designer has the option to either install a diverter within the handheld shower control area that directs the flow of water to either the handheld shower or the fixed shower head or provide separate controls for both the handheld shower and the fixed shower head.

Extra Floor Space

In each qualifying unit, provide at least one bathroom with a full 60", unencumbered turning radius.

Roll-Under Vanity or Sink

In each qualifying unit, provide at least one bathroom with a roll under sink or removable vanity base. If a removable vanity base is provided, it shall be a minimum of 30" wide and easily removable using only a screwdriver. The bathroom floor finish must extend under the removable cabinet, the wall behind the cabinet must be finished, and a baseboard matching that installed in other areas of the dwelling unit shall be permanently installed behind the cabinet.

Tilt Mirror

Provide an adjustable tilt/pivot style mirror in at least one bathroom of each qualifying unit. Mounting height should allow mirror to be easily used in both a standing and seated position.

Solid in-wall Blocking

Installed on walls around toilet, tub, and shower for new or future grab bars and shower seat. Blocking must be suitable to carry a minimum 250 lbs. load. Molded shower surrounds shall have integral plywood backing, or reinforcing is required fully between surround and wall blocking at grab bar and seat locations.

Wall Hangings

Wall hung lavatories are acceptable with appropriate pipe protection.

Countertop

Countertop lavatories preferred with bowl mounted as close to front edge as possible.

Toilet

Toilet centered 18" from any side wall, cabinet or tub.

Laundry

Side-by-Side & Front-Loading Equipment

Laundry equipment in qualifying units, other than tenant-supplied equipment, shall be side-by-side, front-loading type. Where hookups only are provided, laundry closets shall be sized to accommodate side-by-side equipment.

Washer & Dryer Height

Washer and dryer to be on a raised platform.

Access

Clear floor space of 36" wide across full width in front of washer and dryer and extending at least 18" beyond right and left sides.

Bedroom

Closets

In each unit, provide a versatile and adjustable closet organization solution allowing for a more efficient and usable storage area. A single or double adjustable height shelf and rod will not be accepted.

Audio/Visual

Audio/Visual Doorbell

Provide an A/V doorbell in all qualifying units. Doorbell control location to comply with reach range requirements in 3.2.

Visual Alarm

Provide electrically powered internally illuminated emergency alarms located in all habitable spaces including bathrooms shall flash as a visual emergency notification in conjunction with audible emergency alarms. The flashing frequency of visual alarm devices shall be less than 5 Hz. Connect visual alarms to an emergency power source, like audible emergency alarms.

Thermostats

In each qualifying unit, provide either a digital talking thermostat or a rotary style thermostat designed for the visually impaired which incorporates larger numbers and a dial with audible clicks representing degree changes.

Decks

Height

Deck built at same level as house floor.

Windows

Dimensions

Windows for viewing, 36" maximum sill height.

Style

Use casement, awning, hopper, or jalousie style windows.