

Making Gardens Accessible for All

Tip

PP307

4/7/22

P-Patch TIPS are reference documents that address topics related to the development and ongoing management of P-Patch Community Gardens.

Accessible gardens allow direct participation for people of all ages and abilities.

When making improvements, or for new construction all design and capital projects on City of Seattle property are required by federal law to provide readily accessible facilities per the Americans with Disabilities Act (ADA).

What does that mean for you building a P-Patch Community Garden? P-Patch requires at a minimum that new or redeveloping gardens provide accessible gardening beds, tool storage, water source and access to and around the gathering area. When possible, we strongly encourage designs that allow movement through the whole garden for all abilities. Site topography and overall size of the garden will dictate the level of accessibility and available space for gardening.



Raise beds, such as this one at Eastlake, can make gardening much easier on the joints and muscles.

Site Considerations

Location of Beds: Garden beds should be located close to garden entrances, near parking drop off areas, tool storage, and adjacent to a water station. The accessible pathway to the beds should be and not require travel along slopes. Turn-around areas should have 6' x 6' available at both ends of the beds, and the minimum dimensions for pathways should be 48" wide.

Pathways & Surfaces: Must be firm, stable and slip resistant. Walkable surfaces should try to be no steeper than 1:20 (1' rise in 20') or 5% maximum, with a cross slope maximum of 2% or 1:48.

Pathways to accessible area should be no less than 48" wide.

There should be no protruding objects into the pathways.

TIPS should not be used as a substitute for codes, regulations, or rule requirements. Individuals are responsible for compliance with all code, regulatory, and rule requirements, whether or not described in this TIP..

Accessible Path Materials: For gravel the foundation should be 4 inches of 5/8" minus, compacted to 90 - 95%. Top surface should be 1" - 2" of 1/4" to dust or 1/4" minus gravel.

Gravel must be angular versus round. Pavers: Foundation should be 4 inches deep with a compacted base to lay bricks/pavers on level. Watch for Changes in Level 1/4" to 1/2" max depending on if it has a bevel, and then gaps can only be 1/2" maximum, joints between the pavers must be firm and stable enough that a wheel would not get stuck.

Rest and Gathering Areas: Should be accessible to everyone. Tables should permit wheelchairs to roll under and be comfortable for older adults. Consider adding benches in walkways for resting.

Drop-off Areas/Parking: If possible but not required, should be near the accessible areas, with safe areas for transfer in/out of vehicles, and designated parking. There should be no grade change between roadway and garden entrance unless ramps and curb cuts are used. Ramps are required (when slopes are steeper than 1:20) and must not be steeper than 1:12 (1' rise in 12') or 8.3% maximum. Ramps must not be longer than 30' (or rise 30") before a flat landing is created. Shorter is better.

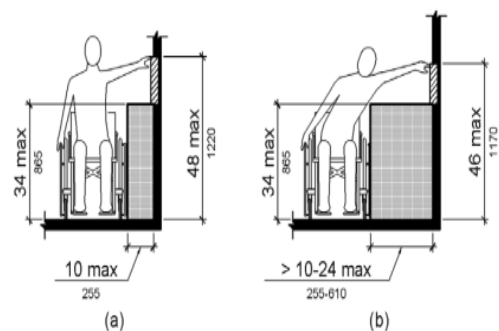
Water: Should be placed close to garden beds, should come out of raised spigot 24" - 36", a lightweight hose should be easily accessible, and hand levers rather than round handles should be used to make it easier to turn on water. Drainage should be considered as not to drain onto the person doing the watering. Water barrels may be placed nearby accessible plots if the plots cannot be situated adjacent to watering stations.

Tool Shed Modifications: At a minimum provide tool storage near accessible beds. The tool shed should be located close to the accessible beds and have level, solid surface pathways leading to it. For wheelchair access within a general shed, it must be at ground level or no steps. Doors when open should provide at least 36" in width. Provide 60+" inside to allow for a 360° turn. Hanging tools should be stored no lower than 18" and not higher than 48". Workbench tops no higher than 34" and not deeper than 24".

General Garden Bed Considerations

There are several options for creating accessible garden beds. The type chosen depends upon the specific needs of each garden and its community. Square feet of gardening space is based on overall size of garden.

Accessible beds tend to fall into three categories: walker, wheelchair, and table-top raised garden beds. Planters are elevated containers which have bottoms that permit drainage.



General Raised Bed Considerations: Side walls of beds should be constructed as thin as possible due to the limited reach of the seated gardener. If the intent is to enable gardeners to sit on the bed, the platform should be a minimum of 12" wide. All beds/planters must be stable enough so they won't tip over and can be used for support. The beds should contain enough soil volume to support mature plants and not dry out too quickly.

Walker Modified Beds: Should have a maximum height of 34", a maximum depth for reach of 36", and at least a 24" soil depth in mind (with any remaining depth filled with crushed gravel to facilitate drainage). Ideally, the beds would be outfitted with handrails around the perimeters.

Wheelchair Modified Beds: Should have a maximum height of 34" and maximum depth of 18" (though if accessible from two sides the width can be 24"-36"). Alternatively, wheelchair beds can be provided with knee space to allow forward approach rather than side access. Soil depth is limited in this design, as the top front edge is 34" maximum and knee space below is 27" minimum.

- **Table-top Style Beds:** (Are helpful for those with limited sight.) If style is chosen, understand these considerations. A north-south orientation for the planter is best for low-growing crops. Drilling 1/2-inch holes every 6 inches across the base promotes good drainage and lining the planting bed bottom with a landscaping fabric before adding the soil mix allows only the water to drain through the holes. Secure the footings into the ground with cement for best stabilization. Table-top gardens can help the visually impaired by bringing the garden closer to eye level.

Garden Bed / Planter Material Considerations:

Wood or Block Raised Beds: Other gardens have built tall planter boxes out of wood, hollow blocks, landscape edging blocks, stone, bricks, and poured concrete are other choices.

Metal Troughs: A common approach is to purchase metal water troughs from feed stores and fill them as planters. They come in many sizes, shapes, and prices. They can be put up on wood or concrete blocks to create optimal heights. Seating should be considered.



Alternative/Additional Modifications: Container gardening may be one alternative to consider as it allows for ease of access with a minimum of construction know-how.

Soil: Should be loose, light, and well-drained to enable weakened hands to work in without strain. Good soil may be derived from mixing equal parts topsoil, sand, and compost. Test the soil mixture for nutrients and pH and add lime or sulfur to bring the pH to about 6.0 - 6.5. When filling the planter bed, remember to allow space for 1 to 2 inches of mulch on top of the soil.

Tools: Most tools can be modified with D-grips or T-grips, telescopic handles, and/or various other modifications to facilitate ease of use for seated gardeners and for gardeners with limited gripping strength. Modified tools might be stored in accessible containers adjacent to modified plots if the tool shed cannot accommodate easy wheelchair or walker access.

When designing your garden, holding meetings, having work parties, or sharing information, think about all levels of ability. All pathways should be free of protruding objects. Refer to “protruding objects weblink in the resource section for more specific design perimeters.

Does a Gardener Need Special Accommodations?

The P-Patch Program shall provide reasonable accommodations to the public, on request, for physical and gardening access, communications, or other needs to allow participation of people with disabilities in services, programs, and activities. Gardeners may make a request for a reasonable accommodation to the P-Patch program or volunteer site leadership based on a disability. For more information, please contact P-Patch staff.

Additional Resources

- **Buehler Enabling Garden:** http://www.chicagobotanic.org/explore/enabling_features.php
- **American Community Gardening Association:** <http://www.communitygarden.org/learn/faq.php#options>
- **Office of Civil Rights:** <http://www.seattle.gov/civilrights/disability.htm>
- *Seattle City ADA Compliance and Resources:* <http://www.seattle.gov/contracting/ada.htm>
- 2010 ADA Standards for Accessible Design: http://www.ada.gov/2010ADASTandards_index.htm
- Universal Design: <http://www.washington.edu/doiit/universal-design-instruction-udi-definition-principles-guidelines-and-examples>
- Sections of the US Access Board Guides [U.S. Access Board - Home \(access-board.gov\)](http://www.access-board.gov)
- [About the ADA Guides \(access-board.gov\)](http://www.access-board.gov)
- [Protruding Objects \(access-board.gov\)](http://www.access-board.gov) – Protruding Objects
- [Wheelchair Maneuvering \(access-board.gov\)](http://www.access-board.gov) – might be useful for you
- **Enabling Garden: A Guide To Lifelong Gardening** by Gene Rothert
- **Accessible Gardening for People With Physical Disabilities: A Guide to Methods, Tools, and Plants** by Janeen R Adil
- **Accessible Gardening: Tips and Techniques for Seniors and the Disabled** by Joann Woy

