

Multiuse Trails

Frequently Asked Questions

What are multiuse trails?

Multiuse trails, also commonly referred to as shared-use paths, greenways, or simply trails, provide dedicated, off-road space for travel by pedestrians, bicyclists, e-bikes, scooters and other non-motorized users like skaters, dog walkers, people pushing strollers, and even equestrians and Amish buggies. Multiuse trails can be in a variety of environments and offer numerous benefits.

Health Benefits

In Ohio, between 25 and 30 percent of adults are physically inactive.¹ Multiuse trails provide a place for people of all ages to exercise and increase their physical activity levels, which will in result improved health outcomes. The American Heart Association published a review that stated, “For every dollar invested in building trails, nearly three dollars in medical cost savings may be achieved.”² Trails don’t only improve physical health, but they have also been shown to improve mental health. Research has shown that spending two hours a week outside can positively impact mental health.³ Mental health benefits of trails are more accessible when trails are located in neighborhoods and near places of work.³

Enviromental Benefits

In 2021, greenhouse gas (GHG) emissions from transportation were the largest percentage of GHG emissions in the US.⁴ People will have the option to change their mode of travel if more trails are developed, in turn decreasing congestion, improving air quality, and reducing overall greenhouse gas emissions. Besides air quality, trails protect and support natural habitats and can prevent soil erosion which can decrease pollution from stormwater and road runoff.⁵

¹ CDC. *Adult Physical Inactivity Prevalence Maps by Race/Ethnicity 2015-2018*. <https://www.cdc.gov/physicalactivity/data/inactivity-prevalence-maps/2015-2018.html>

² American Heart Association. (2018). *Fact Sheet Active Transportation*. <https://www.heart.org/-/media/files/about-us/policy-research/fact-sheets/physical-activity/active-transportation-fact-sheet-2019.pdf>

³ American Trails. *Mental Health Benefits of Trails*. <https://www.americantrails.org/resources/mental-health-benefits-of-trails>

⁴ EPA. *Fast Facts on Transportation Greenhouse Gas Emissions*. <https://www.epa.gov/greenvehicles/fast-facts-transportation-greenhouse-gas-emissions>

⁵ Connecticut Department of Energy & Environmental Protection. *Benefits of Trails and Greenways*. <https://portal.ct.gov/DEEP/Outdoor-Recreation/Greenways/Benefits-of-Trails-and-Greenways>

⁶ MacDonald, Stuart. *American Trails. Evidence of Many Varieties of Economic Benefits Linked to Trails*. <https://www.americantrails.org/resources/evidence-of-many-varieties-of-economic-benefits-linked-to-trails>

⁷ Washington Trails Association. *Trails: Good for Hikers. Good for Communities. Good for the Economy*. <https://www.wta.org/news/magazine/features/trails-good-for-hikers-good-for-communities-good-for-the-economy>



Figure 6: Hocking County/Athens County, OH
(Source: Toole Design Group, LLC)



Figure 2: Mount Vernon, OH
(Source: Toole Design Group, LLC)



Figure 3: Columbus, OH
(Source: Toole Design Group, LLC)



Figure 3: Greenville, NC
(Source: Toole Design Group, LLC)



Figure 5: Howe Community Park - Sacramento
County, CA (Source: Toole Design Group, LLC)



Figure 6: Denver, CO
(Source: Toole Design Group, LLC)

Economic Benefits

In 2021, greenhouse gas (GHG) emissions from transportation were the largest percentage of GHG emissions in the US.⁶ People will have the option to change their mode of travel if more trails are developed, in turn decreasing congestion, improving air quality, and reducing overall greenhouse gas emissions. Besides air quality, trails protect and support natural habitats and can prevent soil erosion which can decrease pollution from stormwater and road runoff.⁷

What are common types of multiuse trails?

There are a variety of multiuse trails which are typically constructed depending on the intended use. Common types of multiuse trails include:

Park trails.

Park trails include trails through or within parks. Park trails are typically for recreational use however they can be used for transportation if connected to a larger trail network.



Figure 7: Unity Park - Greenville, SC.
(Source: Toole Design Group, LLC)



Figure 8: Olentangy Trail - Columbus, OH
(Source: Toole Design Group, LLC)

Shared Use Path.

According to the Ohio Department of Transportation (ODOT)'s Multimodal Design Guide (MDG), shared use paths are multiuse paths that are separated from vehicle traffic and used for transportation and recreation purposes. Users include pedestrians, bicyclists, and people using other micromobility devices.⁸

Side Paths.

According to the ODOT MDG, side paths are shared use paths that are located within the road right-of-way and are adjacent and parallel to the roadway.⁸



Figure 9: Madison, WI
(Source: Toole Design Group, LLC)

⁸ ODOT. Multimodal Design Guide, 1.4 Definitions. <https://www.transportation.ohio.gov/working/engineering/roadway/manuals-standards/multimodal/01/01#14Definitions>



Figure 10: Sacramento River Rail Trail
(Source: Bureau of Land Management California via Flickr)

Rail Trails.

According to Rails to Trails Conservancy (RTC), rail trails are former railroad corridors that have been converted into multiuse trails. Since railroad corridors are often flat or have gentle hills, these make ideal trail corridors.⁹

Park Trails.

Parks trails include trails through or within parks. Park trails are typically for recreational use however they can be used for transportation if connected to a larger trail network.⁹



Figure 11: Cumberland, MD
(Source: Toole Design Group, LLC)

How do we design or redesign multiuse trails?

The Ohio Department of Transportation (**ODOT**) recently released the Multimodal Design Guide (**MDG**) which updated the guidance for shared use path development. Guidance includes recommended trail widths, design speeds, surfacing, volumes, lighting, accessibility requirements, and more. Guidance on several key items can be found below; see [Chapter 5 – Shared Use Paths of the MDG](#) for additional details.¹⁰

Width.

Width is a key factor in developing or redesigning trails and plays directly into the intended use of the multiuse trail. A trail's width determines a variety of safety aspects, such as the potential for user conflicts, the ability to walk or bicycle side-by-side, and when passing is safe. Most existing multiuse trails are less than 11 feet in width.

Guidance, specifically ODOT's MDG, now recommends 11 feet as the minimum starting width for trails while still accepting 8 to 10-foot widths in constrained conditions. However, 11-foot trails are still narrow enough that they can cause potential conflicts with high volumes of traffic, as they do not provide adequate space for people to walk and bicycle side-by-side while also being passed by others. Rather, the MDG recommends widths of 15 feet to allow users to pass and walk side-by-side comfortably.

Design Speed, Volume, and Surfacing.

ODOT's MDG provides recommended design speeds based on context for multiuse paths in [Chapter 5 Section 3.3](#). ODOT's design speed is based on shared use path context, specifically surface type, and types of users.¹¹ Existing trails may not have had design speeds, volume, and surface type considered when they were implemented. Reevaluating these trails and updating the design speed and surfacing based on volume and the current surface type can improve and enhance user experience.

⁹ Rails-to-Trails Conservancy. *Trail-Building Basics*. <https://www.railstotrails.org/build-trails/trail-building-toolbox/basics/trail-building-basics/>

¹⁰ ODOT. *Multimodal Design Guide, 5 – Shared Use Paths*. <https://www.transportation.ohio.gov/working/engineering/roadway/manuals-standards/multimodal/05>

¹¹ ODOT. *Multimodal Design Guide, 5.3.3 Design Speed*. <https://www.transportation.ohio.gov/working/engineering/roadway/manuals-standards/multimodal/05/05#53GeneralDesignConsiderations>

Accessibility.

No matter the type of trail or the intended use, it is essential that the trail and connections to it meet accessibility requirements. ODOT's MDG provides a vast amount of design parameters that meet federal accessibility requirements. Some key accessible design features that pertain to multiuse trails include:

- Curb ramps with a smooth, accessible transition between the trail and the roadway,
- Accessible amenities such as accessible pedestrian signals, accessible pedestrian handrails; and
- Surface types that are slip resistant, stable, and firm, accessible cross slopes.¹²

Besides the design parameters listed above, the MDG goes into detail on accessible widths, running slopes, cross slopes, surface treatments, vertical alignment and vertical discontinuity, obstacles and protruding objects, and horizontal opening – refer to Chapter 4 of the MDG for more guidance.

Connectivity.

Recreational trails that are not typically used for transportation can be improved upon by connecting to an existing trail system or connecting to destinations. When developing new trails consider looking at areas that have gaps in the trail system to create a more connected trail network and improve the transportation system.

Amenities.

When driving in a vehicle you often have rest stops, convenience stores, and gas stations that you can stop at; trails should be no different. When designing trails, it is important to consider what types of amenities should be implemented and how often. To enhance existing trails consider adding new amenities or upgrading existing amenities if they are outdated or broken. Common types of amenities that are found along trail systems include wayfinding, information kiosks, art, lighting, trash and recycling receptacles, benches, tables, shelters, bike fix-it stations, water fountains, restrooms, and bicycle and vehicle parking.¹³ For more information on trail amenities see [ODOT MDG 5.5 Path Amenities](#). For more information on creating a wayfinding system see [ODH's Wayfinding Frequently Asked Questions](#) resource.

Sense of Belonging and Safety.

Safety and a sense of belonging can come in a variety of forms. Women, women of color, Black people, people of color, people with disabilities, and many others have felt like they did not belong and/or felt unsafe when trying to enjoy the outdoors, including trails. Studies show that many Black people feel as though outdoor spaces are not built for them. Historical racism is a major contributor for why trails and outdoor spaces are not located in Black neighborhoods or why the outdoor spaces that are located in Black neighborhoods are underserved.^{14,15} During the beginning planning stages, engaging a diverse set of people can help the project team understand different lived experiences and opinions that the project team might not have thought of.¹⁶ Besides gaining public input, trails should include amenities that improve safety and enhance a sense of belonging and security, such as lighting, art, and in some cases emergency call boxes.¹⁷ For more information on creating inclusive amenities see [ODH's Park Access and Inclusion](#) resource.

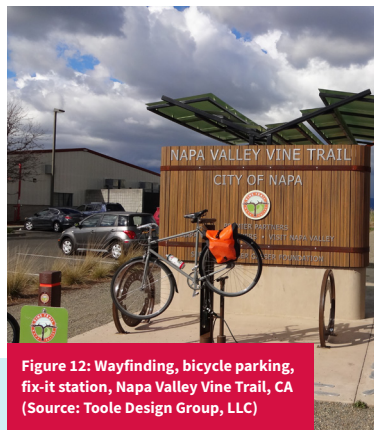


Figure 12: Wayfinding, bicycle parking, fix-it station, Napa Valley Vine Trail, CA (Source: Toole Design Group, LLC)



Figure 13: Boston, MA (Source: Toole Design Group, LLC)



Figure 14: Arbutus Greenway Vancouver, British Columbia (Source: Toole Design Group, LLC)

¹² ODOT. [Multimodal Design Guide](https://www.transportation.ohio.gov/working/engineering/roadway/manuals-standards/multimodal). <https://www.transportation.ohio.gov/working/engineering/roadway/manuals-standards/multimodal>

¹³ ODOT. [Multimodal Design Guide, 5.5 Path Amenities](https://www.transportation.ohio.gov/working/engineering/roadway/manuals-standards/multimodal/05/05#55PathAmenities).

<https://www.transportation.ohio.gov/working/engineering/roadway/manuals-standards/multimodal/05/05#55PathAmenities>

¹⁴ Haines, Anna. *Forbes*. (2021). *Overcoming The Outdoors Diversity Gap: These Hiking Clubs Are Helping Women Of Color Heal In Nature*.

<https://www.forbes.com/sites/annahaines/2021/09/13/overcoming-the-outdoors-diversity-gap-these-hiking-clubs-are-helping-women-of-color-heal-in-nature/>

¹⁵ Gosalvez, Emma. NC State University. (2020). *Nature Gap: Why Outdoor Spaces Lack Diversity and Inclusion*. <https://cnr.ncsu.edu/news/2020/12/outdoor-diversity-inclusion/>

¹⁶ Welin, Matilda. BBC (2024). *The Hiking Movement to Reclaim Green Spaces*. <https://www.bbc.com/future/article/20240109-the-hiking-groups-tackling-racism-in-nature>

¹⁷ Rails to Trails Conservancy. *Public Art*. <https://www.railstotrails.org/trail-building-toolbox/public-art/>

How do we choose a route based on the trail use?

Choosing a route for a potential multiuse trail often depends on the intended use. **Will the trail be used for recreation, transportation, or both?**

If the trail's intended use is for transportation, the route should be direct. Transportation users will typically want the quickest, most direct route, rather than a longer, scenic route. Trail routes that are intended to be used for transportation are more likely to be used by bicyclists than pedestrians.

If the trail's intended use is for recreation or both recreation and transportation, the route can be a mixture of scenic, non-direct routes that might meander through parks and along riverways. Trails that meander will often have higher pedestrian traffic than trails with a main purpose of transportation.

Who should be involved when developing multiuse trails?

It is important to have the proper people involved from the start when developing multiuse trails. Experts may include engineers, planners, urban designers, park employees, and those who understand and are knowledgeable about the Ohio Department of Transportation's (ODOT) Multimodal Design Guide. A good place to start is contacting your City or Village Department of Planning or Public Works, Department of Public Service, or Parks Department since most of these departments will be familiar with multiuse trails. Beside trail experts and jurisdictions, involving people with a variety of ages, abilities, backgrounds, and races can be beneficial as people with different backgrounds have their own unique lived experiences. Include community members such as those who rely on walking and biking as their main mode of transportation, and any existing trail managers or "friend of trails" groups. Environmental and/or historical groups can also prove to be helpful in order to understand environmentally sensitive areas, habitats, and any historic or archeological sites.¹⁸

What are common challenges when developing and maintaining trails?

Trail development does not come without its challenges; some common challenges and potential solutions are listed here:

- Utilities are a common challenge as they are often located within the right-of-way where sidepaths can also be located. This is essential information to know when constructing a new trail and when maintaining trails and nearby utilities. Contacting your local jurisdiction can be helpful to understand next steps and how to contact and work with utility companies.
- Obtaining property ownership for the development of a trail or a temporary easement for construction of a trail can prove to be difficult as it can involve several parties. Land might be acquired through direct purchase, trail easements, land donations, land lease, or option to buy. Rails to Trails Conservancy has provided guidance on acquiring land through their Acquisition Strategy webpage.
- The natural context of where a trail is located can create all types of challenges. Challenging terrain, sensitive ecosystems, historic and archaeological sites, and road, rail, and water crossings can all present significant challenges when developing and maintaining trails.
 - **Environmentally Sensitive Areas:** Rails to Trails Conservancy's (RTC) Developing Trails in Sensitive Areas article provides research around trail development in environmentally sensitive areas such as wetlands, estuaries, grass lands, and designated wild life. RTC recommends consulting an ecologist if a trail is proposed to be built in or near an environmentally sensitive area.¹⁹ See RTC's Developing Trails in Sensitive Areas for more information on what to consider when developing trails in or around environmentally sensitive areas.



¹⁸ American Trails Staff. American Trails. *Why Trails Matter: Trails are Inclusive*. <https://www.americantrails.org/resources/trails-are-inclusive>

¹⁹ Rails-to-Trails Conservancy. *Developing Trails in Sensitive Areas*. <https://www.railstotrails.org/trail-building-toolbox/developing-trails-in-sensitive-areas/>

What are common challenges when developing and maintaining trails? (Continued)

- **Historic and Archaeological Areas:** The United States Department of Agriculture has provided the National Scenic and Historic Trails Program which established guidance around developing, preserving, and maintaining National Historic Trails.²⁰ While this guidance is not required for trails that are not designated as part of the National Scenic and Historic Trails Program, the guidance does provide best practices that could be applicable when developing trails in or near historic areas. Best practices include creating an inventory of historic sites along the trail, understanding how trail usage might impact the historic site or area, implementing any protection and/or preservation that might be necessary, and consulting with any agencies, historic groups, and tribes.²¹
- **Crossings:** Multiuse trails often cross roadways, freeways, bodies of waters, and railroad tracks. There are a variety of design elements that should be considered when designing crossings at these locations. Refer to the Ohio Department of Transportation (ODOT)'s Multimodal Design Guide (MDG) for guidance around crossings, specific sections related to crossings are listed below:
 - ODOT MDG 4.4 Intersections and Pedestrian Crossings.
 - ODOT MDG 4.5 Pedestrian Crossing Treatment Design.
 - ODOT MDG 5.4 Bridges and Underpasses for Paths.
 - ODOT MDG 5.6 Shared Use Path Intersection Design.
 - ODOT MDG 6.5.2 Separated Bike Lanes at Intersection Design.

- Challenges may also continue into the maintenance of trails after development. Trail maintenance includes maintaining the trail surface, vegetation management, snow removal, amenity management (trash removal, restroom cleaning, signage repairs), trail closures, emergency maintenance, and litter removal.²² American Trails Maintenance Practices and Costs of Rail Trails provides labor cost breakdowns, based on example trails, for a variety of maintenance activities. Make sure a plan for maintenance is considered early in the design process.



²⁰ Rails-to-Trails Conservancy. *Developing Trails in Sensitive Areas*. <https://www.railstotrails.org/trail-building-toolbox/developing-trails-in-sensitive-areas/>

²¹ United States Department of Agriculture. (2014). *National Scenic and Historic Trails Program*. <https://www.fs.usda.gov/sites/default/files/National-Scenic-Historic-Trails-Brochure-508.pdf>

²² ODOT. *Multimodal Design Guide*, 3.7 Other Considerations. <https://www.transportation.ohio.gov/working/engineering/roadway/manuals-standards/multimodal/03/03#37OtherConsiderations>

What funding opportunities are available?

Over the past few years funding for active transportation, such as multiuse trails, has become more prevalent and accessible. Funding opportunities include but are not limited to:

- [**Ohio Department of Natural Resource \(ODNR\).**](#)
 - [Recreational Trails Program \(RTP\).](#)
 - [Clean Ohio Trail Fund \(COTF\).](#)
 - [ODNR Nature Works.](#)
- [**Highway Safety Improvement Program \(HSIP\).**](#)
- [**Safe Routes to School \(SRTS\).**](#)
- [**Transportation Alternative Program \(TAP\).**](#)
- [**Ohio Public Works Commission Clean Ohio Green Space Conservation Program.**](#)
- [**American Trails – The Trail Fund Programs.**](#)
- [**RAISE Discretionary Grants.**](#)
- [**Active Transportation Infrastructure Investment Program \(ATIIP\).**](#)
- [**Other technical assistance opportunities:**](#)
 - [National Park Service.](#)
 - [Local Metropolitan Planning Organizations or Regional Transportation Planning Organizations.](#)

Where can I learn more?

- [**Rails-to-Trails Conservancy.**](#)
 - [Rails-to-Trails Conservancy Funding Tool.](#)
 - [Trail Building Basics.](#)
- [**Ohio Department of Transportation \(ODOT\) Multimodal Design Guide.**](#)
- [**Wayfinding FAQ.**](#)
- [**Walk.Bike.Ohio Report Funding.**](#)
- [**Ohio Department of Transportation \(ODOT\) Funding Catalog.**](#)

