

Section 16 - Trails

(orig. 7-12-05)

A. Standards

1. Trails are required in the following situations:
 - a. When a trail corridor, as delineated by the Jefferson County Open Space Master Plan, traverses or is adjacent to the proposed development. Trails shall be provided within, or as close as possible to the delineated trail corridor. (orig. 10-25-05)
 - b. When a trail corridor, as delineated by a Park and Recreation District's Plan, traverses or is adjacent to the proposed development. Trails shall be provided within, or as close as possible to the delineated trail corridor. (orig. 10-25-05)
 - c. To link public transit stops, schools, recreation facilities and park sites, and/or public areas interior or exterior to the proposed development. (orig. 10-25-05)
 - d. When a trail is shown on the Official Development Plan. (orig. 10-25-05)
 - e. To continue existing planned and/or platted trails from adjoining developments. (orig. 10-25-05)
 - f. To provide opportunities to walk within the proposed development. This may be required for pedestrian connectivity in open space tracts to optimize circulation. (orig. 10-25-05; am. 7-17-18)
 - g. To provide alternate pedestrian circulation within developments where sidewalks will not be constructed. (orig. 4-4-06)
2. Trails shall comply with the Architectural Barriers Act Accessibility Guidelines: Outdoor Developed Areas, and American's with Disabilities Act as required. (orig. 4-4-06; am. 7-17-18)
3. For Jefferson County Open Space purposes, the Forest Service Trails Accessibility Guidelines and the Forest Service Outdoor Recreation Accessibility Guidelines will apply, as appropriate. (orig. 7-17-18)
4. For bikeways, the American Association of State Highways and Transportation Officials Design Guidelines will apply, as appropriate. (orig. 7-17-18)
5. Trail Width
 - a. Trails shall be designed and built to the following dimensions, unless otherwise approved. (orig. 4-4-06)

	Surface Width	Shoulder Width	Underpass/Tunnel Width	Turning Radius for Maintenance Vehicles	Overhead Clearance
For trails to be dedicated to a public entity	10 feet minimum	2 feet on each side minimum	Trail width plus 1 foot on each side minimum	25 feet at centerline	10 feet minimum
All other trails (Bike and Pedestrian, Private)	8 feet minimum	2 feet on each side minimum	Trail width plus 1 foot on each side minimum	25 feet at centerline	10 feet minimum
All other Pedestrian Trails (Private)	6 feet or 4 feet, based on proposed trail use	1 foot clear area	Trail width plus 1 foot on each side minimum	25 feet at centerline	10 feet minimum

- b. Shoulders: Shoulders shall be graded, and cleared of tree trunks, projecting rock ledges, limbs,

logs and brush. (orig. 4-4-06)

- c. Turning Radius: The local fire district may require additional turning radius if trail will be used for emergency access. (orig. 4-4-06)

6. Surface materials

- a. Planning and Zoning and/or Open Space shall determine the appropriate surface materials based on, but not limited to, factors such as projected trail use and location. (orig. 4-4-06)
- b. Hard Surface: If a hard surface is required, the surface material shall be five (5) inches of Portland cement concrete placed on compacted sterilized subgrade. Six (6) inches may be required based on geotechnical recommendations and soil tests. (reloc. 7-12-05; reloc. 10-25-05; am. 4-4-06)
 - (1) If a hard surface is required, an additional 4-foot wide soft surface trail may also be required for separate jogging and equestrian use. (orig. 4-4-06)
- c. Soft Surface: If a soft surface is required, the surface material shall be Crusher fines or other soft surface as determined by Planning and Zoning and/or Open Space. (orig. 4-4-06)
 - (1) Crusher fines shall be 3/8" minus crushed granite or other approved hard stone. (orig. 4-4-06)
 - (2) The fines shall be installed at a 4-6" depth (within a trench) and placed over a geotextile fabric. (orig. 4-4-06)
 - (3) All tread obstacles shall be removed. (orig. 4-4-06)

7. Subsurface Material

- a. Compaction shall be in accordance with the land disturbance section of the Zoning Resolution. (orig. 4-4-06)
- b. For any trails that will be used by maintenance vehicles and/or emergency vehicles, a minimum compaction force of 5000 pounds per square inch shall be required. (orig. 4-4-06)
- c. For any trail within the Dipping Bedrock Overlay District, mitigation shall be required as indicated in the Geotechnical Report and approved by the County Engineering Geologist. (orig. 4-4-06)

8. Grade

- a. All trails shall be designed and built to the following dimensions, unless otherwise approved by Planning and Zoning due to topographic and site constraints. (orig. 4-4-06; am. 7-17-18)
 - (1) The maximum grade shall be 5% except as outlined in the Table below, or as determined by Planning and Zoning. (orig. 4-4-06; am. 7-17-18)

Maximum Grade	Length of Trail Segment
8.3%	200 feet
10%	30 feet maximum
12.5%	10 feet maximum

- (2) The maximum cross-slope shall be 2%. EXCEPTION: Where the surface is other than concrete, asphalt, or boards, cross slopes not steeper than 5% shall be permitted when necessary for drainage. (orig. 4-4-06; am. 7-17-18)

9. Intersections

- a. Street/Road crossing(s) shall be as near as possible to right angles. (orig. 4-4-06)
- b. Highway crossings shall be constructed to minimize hazardous conditions and shall be approved by Transportation and Engineering. (am. 7-12-05; reloc. 10-25-05; am. 4-4-06)

- c. Curb-cuts shall meet the standards of the Transportation Design and Construction Manual. (am. 7-12-05; reloc. 10-25-05; am. 4-4-06; am. 11-24-15)
- d. Stream crossings shall be in accordance with Stormwater Drainage Criteria and Floodplain regulations. (reloc. 7-12-05; reloc. 10-25-05; am. 4-4-06)

10. Trail Safety

- a. Signage: Trail signage shall be in accordance with the manual on Uniform Traffic Control Devices from the U.S. Department of Transportation, as required. (orig. 4-4-06; am. 7-17-18)
- b. Handrails: Handrails shall be required when there is an embankment with greater than a 3:1 slope within 5' from the trail edge. (orig. 4-4-06)
 - (1) Handrails shall be constructed to the county's adopted building code requirements. (orig. 4-4-06)
- c. Design Speed: Design speed and trail curve radii shall be designed to minimize hazards for all users and shall be in compliance with the American Association of State Highway and Transportation Officials. (reloc. 7-12-05; reloc. 10-25-05; am. 4-4-06)

11. Grading/Drainage

- a. Cut and Fill Slopes shall be reseeded with an approved seed mix as determined by Planning and Zoning and/or Open Space. (reloc. 7-12-05; reloc. 10-25-05; am. 7-17-18)
- b. Drainage improvements may be required to mitigate trail impacts, including, but not limited to, swales, ditches, culverts, etc. (orig. 4-4-06)
- c. Trails shall be designed to minimize grading and scarring of the landscape and not create erosion and drainage problems. (reloc. 7-12-05; reloc. 10-25-05)

12. Trail Tracts

- a. Trails shall be located in tracts to reduce impacts to future lot owners, unless otherwise determined by Planning and Zoning. (orig. 4-4-06)
- b. Dimensions

The minimum width of the tract shall be 20 feet, unless otherwise approved by Planning and Zoning. (orig. 4-4-06)
- c. If a trail is located in a tract that will be conveyed to a public entity, a trail easement will not be required, unless otherwise determined by the public entity. (orig. 4-4-06)

3. Trail Easements

- a. Trail easements shall be dedicated to the appropriate party to ensure access for the trails' intended use. (orig. 10-25-05; am. 4-4-06)
- b. If applicable, a temporary construction easement shall be provided to the entity constructing the trail. When Open Space is the entity constructing the trail, a blanket easement may be required. The blanket easement will be reduced to a permanent easement once the trail has been constructed and surveyed. (orig. 4-4-06)
- c. Dimensions (orig. 4-4-06; am. 7-17-18)

Type of easement	Minimum width of easement
Permanent Trail Easement	Minimum of 30 feet; or 10 feet on each side, whichever is greater.
Temporary Construction Easement	50 feet

B. Trail Plan(s)

1. Preparation

- a. The Trail Plan(s) (excluding plans for engineered structures) shall be prepared and signed by a licensed landscape architect or an engineer registered in the State of Colorado. (orig. 10-25-05; am. 4-4-06; am. 7-17-18)
- b. Plans for engineered structures shall be prepared and signed by a professional engineer, registered in the State of Colorado and qualified in the field of civil engineering. All construction shall conform to County standards. (orig. 10-25-05)

2. Content

The Trail Plan(s) shall include, but not be limited to, the following: (orig. 10-25-05)

- a. Cross-sections when required by Planning and Zoning and/or Open Space. (orig. 10-25-05)
- b. Plans of the improvements which are to be installed in, on, over, or under the trail. (orig. 10-25-05)
- c. The location of all drainage structures with construction data, such as the size, type, length, slope, invert elevations, etc. (orig. 10-25-05; am. 4-4-06)
- d. The entity/entities that will implement the plan, construct required improvements, and be responsible for the maintenance of the improvements and appropriate easements, if any. (orig. 10-25-05)
- e. Trail Alignment Map that shows: The proposed development including lots, tracts and street/road alignment; the natural topography as shown by contour lines; and the approximate trail tread alignment indicating type of trail use. (orig. 10-25-05)

3. Approval

- a. The Trail Plan(s) shall be approved by Planning and Zoning and/or Open Space prior to the development's approval. (orig. 10-25-05; am. 4-4-06)
- b. Variations to the Trail Standards may be approved by Planning and Zoning and/or Open Space. (orig. 4-4-06)
 - (1) Justification for Trail Standard variations includes topographical and geological/geotechnical constraints, pre-existing trail conditions, projected trail uses, trail location, and/or nature of trail connection. (orig. 10-25-05; am. 4-4-06; am. 7-17-18)