

From: [Elizabeth Erickson](#)
To: [Mary McCrea](#)
Cc: [Morgan Valliant](#); [Donna Gaukler](#); [Neil Miner](#)
Subject: FW: CLM trail guidelines
Date: Monday, March 18, 2019 11:29:27 AM

Hi Mary,

Below is a chart with the trail standards from the City's Conservation Lands Management Plan. These standards are for conservation lands trails. Keep in mind, most conservation lands trails are anticipated to be unpaved, recreational trails, such as those on the side of Mount Jumbo going to the L, or the single track trails on the side of Waterworks Hill. More importantly, conservation lands trails may "receive" year-round use (as stated in Morgan's email that Paul Forsting presented in the LUP presentation last week); however, those trails are not maintained for year-round use. They are not plowed, and while they are open year round, they are icy, require post-holing through snow, and generally get pretty treacherous during many months of the year. The winter use they "receive" is usually only by serious hikers with yak-tracks. For hiking trails, the standards state tread width is 18"-48", and desirable 1-10% grade with a *maximum* of 20% grade. What these standards don't convey is that for steeper trails, there is also a lot of drainage work that has to be done (culverts, water bars, etc.) and other important considerations such as aspect (north-facing slopes get more snow and ice) to plan for the snow, ice and drainage.

Conservation lands trails do not meet, and should not replace, standards for developed land. They are designed for undeveloped areas such as Park Preserves (Mount Jumbo, Mount Sentinel, North Hills). They should not be confused with or conflated with standards for developed areas.

Regardless of whether Council decides to waive the block length standard, I think it is important that Council understands the block length standard and the recreational trail proposed at Hillview Crossing are solving for two entirely different variables. The western trail provides a recreational trail to connect Wapikiya Park with the Tonkin Trail and the sidewalk system on Hillview Way. It is not a commuter trail. It seems the eastern trail proposed by developers would also potentially serve a recreational purpose. It would not solve the issue of safe pedestrian connections between units to access the sidewalk system, and to reduce dependence on vehicles to get to school, bus stop, etc. Again, those two standards are solving for completely different variables. If Council decides to waive the block length standard, it should not, in my opinion, be based on the Developer providing a trail on the eastern side of the property, since that trail will not serve the intended purpose of the breaks in the block length.

This is the email Paul Forsting showed at LUP. Again, it is referring to the western trail the City worked on with the Hillview Crossing developers. The City anticipates maintaining that trail, but that maintenance does not include any sort of plowing, sanding, etc.

"Hi Jason, On our Conservation Lands we do build up to 20% for ped-only trails. However given that the trail on Hillview Crossing will serve as a connector between a developed Park and the Tonkin Trail I believe we decided to shoot for around 12-15%.....an ideal range for construction of **sustainable low-maintenance trails that receive year-round use.**"

Elizabeth Erickson

From: Morgan Valliant <ValliantM@ci.missoula.mt.us>

Sent: Monday, March 18, 2019 10:54 AM

To: Elizabeth Erickson <EricksonE@ci.missoula.mt.us>

Subject: CLM trail guidelines

Designed Use	Hiker	Bike	Equestrian
Tread Width	18"-48"	24"-48"	48"-96"
Target Grade Range	Desirable 1-10% Max 20%	Max 15%	Max 10%
Target Cross-slope Range	3-7% Max 10%	3-7% Max 10%	5% Max 10%
Clearing Width	12"-18" outside of tread edge	36"-72" outside of tread edge	36"-72" outside of tread edge
Clearing Height	8'	8'	10-12'
Minimum Turn Radius	4'	8'-12'	10'-12'
Surface Type	Native or imported materials	Native or imported materials	Native or imported materials
Surface Obstacles	Smooth with few obstacles. Occasional protrusions 2-3"		

Morgan Valliant
Conservation Lands Manager
Missoula Parks and Rec.
100 Hickory St.
Missoula Mt. 59801
(406) 552-6263