

SWIMBA Trail Standards

In an effort to provide consistency and improve communications among trail builders, land owners and Federal Land Managers (FLM), SWIMBA has decided to adopt trail standards. As SWIMBA moves forward with trail development and long term maintenance we need a more effective and consistent way of communicating trail design parameters and long term maintenance needs. This starts with a hierarchy of trail classification and moves toward the intended trail users. One user group may have specific trail needs which will necessitate specific design parameters leading to that trails assignment of a “designated use.” As an example, equestrians may need branches cleared much higher above the trail than other users and mountain bike trails may need more twists and turns than other user groups in an effort to reduce speed while increasing the fun factor.

Upon beginning the quest for information on this topic it became quickly apparent SWIMBA isn't alone and many other trail building organizations and FLMs have come to the same cross roads. Central Oregon Trail Alliance (COTA) went through this same process in the fall of 2011 which provided a wealth of useful information that SWIMBA will be utilizing. The U.S. Forest Service went through the process of redefining trail classifications and design parameters in 2008. Whistler Mountain Resort one of Canada's premier mountain biking locations also went through a similar process and developed an excellent trail difficulty classification.

With these thoughts in mind SWIMBA is opting to adopt the 2008 Forest Service trail classification¹, user designation process and design parameters as SWIMBA's trail standards for future trail development and trail improvement plans. In areas SWIMBA will have the flexibility to rate trails we will be adopting Whistler's trail rating system². What follows is a conglomeration of the U.S Forest Service Trail Classification system, Whistler's trail rating system and definitions taken for both these organizations.

¹ *National Trail Classification System* , FSM 2350 and FSH 2309.18, Federal Register / Vol. 73, No. 201 / Thursday, October 16, 2008, pp 61600-61547. Available at: <http://www.gpo.gov/fdsys/pkg/FR-2008-10-16/pdf/E8-24193.pdf>

² *Whistler Trail Standards Environmental and Technical Trail Features*, Andrew DeBoer, Whistler Cycling Community, Summer 2003. Available at: http://www.mbta.ca/assets/pdfs/trail_standards_first_edition.pdf

Trail Class Matrix

Trail Classes are general categories reflecting trail development scale, arranged along a continuum. The Trail Class identified for a National Forest System (NFS) trail prescribes its development scale, representing its intended design and management standards.¹ Local deviations from any Trail Class descriptor may be established based on trail-specific conditions, topography, or other factors, provided that the deviations do not undermine the general intent of the applicable Trail Class.

Identify the appropriate Trail Class for each National Forest System trail or trail segment based on the management intent in the applicable land management plan, travel management direction, trail-specific decisions, and other related direction. Apply the Trail Class that most closely matches the management intent for the trail or trail segment, which may or may not reflect the current condition of the trail.

Trail Attributes	Trail Class 1 Minimally Developed	Trail Class 2 Moderately Developed	Trail Class 3 Developed	Trail Class 4 Highly Developed	Trail Class 5 Fully Developed
Tread & Traffic Flow	<ul style="list-style-type: none"> ♦ Tread intermittent and often indistinct ♦ May require route finding <ul style="list-style-type: none"> ♦ Single lane with no allowances constructed for passing ♦ Predominantly native materials 	<ul style="list-style-type: none"> ♦ Tread continuous and discernible, but narrow and rough ♦ Single lane with minor allowances constructed for passing <ul style="list-style-type: none"> ♦ Typically native materials 	<ul style="list-style-type: none"> ♦ Tread continuous and obvious ♦ Single lane, with allowances constructed for passing where required by traffic volumes in areas with no reasonable passing opportunities available ♦ Native or imported materials 	<ul style="list-style-type: none"> ♦ Tread wide and relatively smooth with few irregularities ♦ Single lane, with allowances constructed for passing where required by traffic volumes in areas with no reasonable passing opportunities available <ul style="list-style-type: none"> ♦ Double lane where traffic volumes are high and passing is frequent ♦ Native or imported materials <ul style="list-style-type: none"> ♦ May be hardened 	<ul style="list-style-type: none"> ♦ Tread wide, firm, stable, and generally uniform ♦ Single lane, with frequent turnouts where traffic volumes are low to moderate ♦ Double lane where traffic volumes are moderate to high ♦ Commonly hardened with asphalt or other imported material
Obstacles	<ul style="list-style-type: none"> ♦ Obstacles common, naturally occurring, often substantial and intended to provide increased challenge ♦ Narrow passages; brush, steep grades, rocks and logs present 	<ul style="list-style-type: none"> ♦ Obstacles may be common, substantial, and intended to provide increased challenge ♦ Blockages cleared to define route and protect resources ♦ Vegetation may encroach into trailway 	<ul style="list-style-type: none"> ♦ Obstacles may be common, but not substantial or intended to provide challenge ♦ Vegetation cleared outside of trailway 	<ul style="list-style-type: none"> ♦ Obstacles infrequent and insubstantial ♦ Vegetation cleared outside of trailway 	<ul style="list-style-type: none"> ♦ Obstacles not present ♦ Grades typically < 8%

Trail Attributes	Trail Class 1 Minimally Developed	Trail Class 2 Moderately Developed	Trail Class 3 Developed	Trail Class 4 Highly Developed	Trail Class 5 Fully Developed
Constructed Features & Trail Elements	<ul style="list-style-type: none"> Structures minimal to non-existent <ul style="list-style-type: none"> Drainage typically accomplished without structures Natural fords Typically no bridges 	<ul style="list-style-type: none"> Structures of limited size, scale, and quantity; typically constructed of native materials <ul style="list-style-type: none"> Structures adequate to protect trail infrastructure and resources <ul style="list-style-type: none"> Natural fords Bridges as needed for resource protection and appropriate access 	<ul style="list-style-type: none"> Structures may be common and substantial; constructed of imported or native materials <ul style="list-style-type: none"> Natural or constructed fords <ul style="list-style-type: none"> Bridges as needed for resource protection and appropriate access 	<ul style="list-style-type: none"> Structures frequent and substantial; typically constructed of imported materials <ul style="list-style-type: none"> Constructed or natural fords <ul style="list-style-type: none"> Bridges as needed for resource protection and user convenience Trailside amenities may be present 	<ul style="list-style-type: none"> Structures frequent or continuous; typically constructed of imported materials <ul style="list-style-type: none"> May include bridges, boardwalks, curbs, handrails, trailside amenities, and similar features
Signs²	<ul style="list-style-type: none"> Route identification signing limited to junctions Route markers present when trail location is not evident <ul style="list-style-type: none"> Regulatory and resource protection signing infrequent Desination signing, unless required, generally not present Information and interpretive signing generally not present 	<ul style="list-style-type: none"> Route identification signing limited to junctions Route markers present when trail location is not evident <ul style="list-style-type: none"> Regulatory and resource protection signing infrequent Destination signing typically infrequent outside of wilderness; generally not present in wilderness Information and interpretive signing not common 	<ul style="list-style-type: none"> Route identification signing at junctions and as needed for user reassurance Route markers as needed for user reassurance <ul style="list-style-type: none"> Regulatory and resource protection signing may be common Destination signing likely outside of wilderness; generally not present in wilderness Information and interpretive signs may be present outside of wilderness 	<ul style="list-style-type: none"> Route identification signing at junctions and as needed for user reassurance Route markers as needed for user reassurance <ul style="list-style-type: none"> Regulatory and resource protection signing common Destination signing common outside of wilderness; generally not present in wilderness Information and interpretive signs may be common outside of wilderness Accessibility information likely displayed at trailhead 	<ul style="list-style-type: none"> Route identification signing at junctions and for user reassurance Route markers as needed for user reassurance <ul style="list-style-type: none"> Regulatory and resource protection signing common Destination signing common Information and interpretive signs common Accessibility information likely displayed at trailhead
Typical Recreation Environments & Experience³	<ul style="list-style-type: none"> Natural, unmodified ROS: Typically Primitive to Roded Natural WROS: Typically Primitive to Semi-Primitive 	<ul style="list-style-type: none"> Natural, essentially unmodified ROS: Typically Primitive to Roded Natural Typically WROS: Typically Primitive to Semi-Primitive 	<ul style="list-style-type: none"> Natural, primarily unmodified ROS: Typically Primitive to Roded Natural WROS: Typically Semi-Primitive to Transition 	<ul style="list-style-type: none"> May be modified ROS: Typically Semi-Primitive to Rural Roded Natural to Rural setting WROS: Typically Portal or Transition 	<ul style="list-style-type: none"> May be highly modified Commonly associated with visitor centers or high-use recreation sites ROS: Typically Roded Natural to Urban Generally not present in Wilderness

¹ For National Quality Standards for Trails, Potential Appropriateness of Trail Classes for Managed Uses, Design Parameters, and other related guidance, refer to FSM 2353, FSH 2309.18, and other applicable agency references.

² For standards and guidelines for the use of signs and posters along trails, refer to the Sign and Poster Guidelines for the Forest Service (EM-7100-15).

³ The Trail Class Matrix shows the combinations of Trail Class and Recreation Opportunity Spectrum (ROS) or Wilderness Recreation Opportunity Spectrum (WROS) settings that commonly occur, although trails in all Trail Classes may and do occur in all settings. For guidance on the application of the ROS and WROS, refer to FSM 2310 and 2353 and FSH 2309.18.

Design Parameters

Design Parameters are technical guidelines for the survey, design, construction, maintenance, and assessment of National Forest System trails, based on their Designed Use and Trail Class and consistent with their management intent¹. Local deviations from any Design Parameter may be established based on trail-specific conditions, topography, or other factors, provided that the deviations are consistent with the general intent of the applicable Trail Class.

Designed Use HIKER/PEDESTRIAN		Trail Class 1	Trail Class 2	Trail Class 3 ²	Trail Class 4 ²	Trail Class 5 ²
Design Tread Width	Wilderness (Single Lane)	0" – 12"	6" – 18"	12" – 24" Exception: may be 36" – 48" at steep side slopes	18" – 24" Exception: may be 36" – 48" at steep side slopes	Not applicable
	Non-Wilderness (Single Lane)	0" – 12"	6" – 18"	18" – 36"	24" – 60"	36" – 72"
	Non-Wilderness (Double Lane)	36"	36"	36" – 60"	48" – 72"	72" – 120"
	Structures (Minimum Width)	18"	18"	18"	36"	36"
Design Surface³	Type	Native, ungraded May be continuously rough	Native, limited grading May be continuously rough	Native with some onsite borrow or imported material where needed for stabilization, occasional grading Intermittently rough	Native with improved sections of borrow or imported material, routine grading Minor roughness	Likely imported material, routine grading Uniform, firm, and stable
	Protrusions	≤ 24" Likely common and continuous	≤ 6" May be common and continuous	≤ 3" May be common, not continuous	≤ 3" Uncommon, not continuous	No protrusions
	Obstacles (Maximum Height)	24"	14"	10"	8"	No obstacles
Design Grade³	Target Grade	5% – 25%	5% – 18%	3% – 12%	2% – 10%	2% – 5%
	Short Pitch Maximum	40%	35%	25%	15%	5% FSTAG: 5% – 12% ²
	Maximum Pitch Density	20% – 40% of trail	20% – 30% of trail	10% – 20% of trail	5% – 20% of trail	0% – 5% of trail

Designed Use HIKER/PEDESTRIAN		Trail Class 1	Trail Class 2	Trail Class 3 ²	Trail Class 4 ²	Trail Class 5 ²
Design Cross Slope	Target Cross Slope	Natural side slope	5% – 20%	5% – 10%	3% – 7%	2% – 3% (or crowned)
	Maximum Cross Slope	Natural side slope	25%	15%	10%	3%
Design Clearing	Height	6'	6' – 7'	7' – 8'	8' – 10'	8' – 10'
	Width	≥ 24" Some vegetation may encroach into clearing area	24" – 48" Some light vegetation may encroach into clearing area	36" – 60"	48" – 72"	60" – 72"
	Shoulder Clearance	3" – 6"	6" – 12"	12" – 18"	12" – 18"	12" – 24"
Design Turn	Radius	No minimum	2' – 3'	3' – 6'	4' – 8'	6' – 8'

¹ For definitions of Design Parameter attributes (e.g., Design Tread Width and Short Pitch Maximum) see FSH 2309.18, section 05.

² Trail Classes 3, 4, and 5, in particular, have the potential to provide accessible passage. If assessing or designing trails for accessibility, refer to the Forest Service Trail Accessibility Guidelines (FSTAG) for more specific technical provisions and tolerances (FSM 2350).

³ The determination of trail-specific design grades, design surface, and other Design Parameters should be based upon soils, hydrological conditions, use levels, erosion potential, and other factors contributing to surface stability and overall sustainability of the trail.

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Designed Use PACK AND SADDLE		Trail Class 1	Trail Class 2	Trail Class 3	Trail Class 4	Trail Class 5
Design Tread Width	Wilderness (Single Lane)	Typically not designed or actively managed for equestrians, although use may be accepted	12" – 18" May be up to 48" along steep side slopes 48" – 60" or greater along precipices	18" – 24" May be up to 48" along steep side slopes 48" – 60" or greater along precipices	24" May be up to 48" along steep side slopes 48" – 60" or greater along precipices	Typically not designed or actively managed for equestrians, although use may be accepted
	Non-Wilderness (Single Lane)		12" – 24" May be up to 48" along steep side slopes 48" – 60" or greater along precipices	18" – 48" 48" – 60" or greater along precipices	24" – 96" 48" – 60" or greater along precipices	
	Non-Wilderness (Double Lane)		60"	60" – 84"	84" – 120"	
	Structures (Minimum Width)		Other than -bridges: 36" Bridges without handrails: 60" Bridges with handrails: 84" clear width	Other than bridges: 36" Bridges without handrails: 60" Bridges with handrails: 84" clear width	Other than bridges: 36" Bridges without handrails: 60" Bridges with handrails: 84" clear width	
Design Surface²	Type	Native, limited grading May be frequently rough	Native with some onsite borrow or imported material where needed for stabilization, occasional grading Intermittently rough	Native, with improved sections of borrow or imported material, routine grading Minor roughness		
	Protrusions	≤ 6" May be common and continuous	≤ 3" May be common, not continuous	≤ 3" Uncommon, not continuous		
	Obstacles (Maximum Height)	12"	6"	3"		

10/16/2008

Designed Use PACK AND SADDLE		Trail Class 1	Trail Class 2	Trail Class 3	Trail Class 4	Trail Class 5
Design Grade ²	Target Grade		5% – 20%	3% – 12%	2% – 10%	
	Short Pitch Maximum		30%	20%	15%	
	Maximum Pitch Density		15% – 20% of trail	5% – 15% of trail	5% – 10% of trail	
Design Cross Slope	Target Cross Slope		5% – 10%	3% – 5%	0% – 5%	
	Maximum Cross Slope		10%	8%	5%	
Design Clearing	Height		8' – 10'	10'	10' – 12'	
	Width		72" Some light vegetation may encroach into clearing area	72" – 96"	96"	
	Shoulder Clearance		6" – 12" Pack clearance: 36" x 36"	12" – 18" Pack clearance: 36" x 36"	12" – 18" Pack clearance: 36" x 36"	
Design Turn	Radius		4' – 5'	5' – 8'	6' – 10'	

¹ For definitions of Design Parameter attributes (e.g., Design Tread Width and Short Pitch Maximum) see FSH 2309.18, section 05.

² The determination of trail-specific design grades, design surface, and other Design Parameters should be based upon soils, hydrological conditions, use levels, erosion potential, and other factors contributing to surface stability and overall sustainability of the trail.

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Designed Use BICYCLE		Trail Class 1	Trail Class 2	Trail Class 3	Trail Class 4	Trail Class 5
Design Tread Width	Single Lane	6" – 12"	12" – 24"	18" – 36"	24" – 48"	36" – 60"
	Double Lane	36" – 48"	36" – 48"	36" – 48"	48" – 84"	72" – 120"
	Structures (Minimum Width)	18"	18"	36"	48"	60"
Design Surface²	Type	Native, un-graded May be continuously rough Sections of soft or unstable tread on grades < 5% may be common and continuous	Native, limited grading May be continuously rough Sections of soft or unstable tread on grades < 5% may be common	Native with some onsite borrow or imported material where needed for stabilization, occasional grading Intermittently rough Sections of soft or unstable tread on grades < 5% may be present, but not common	Native, routine grading with improved sections of borrow or imported materials Stable with minor roughness	Likely imported material, routine grading Uniform, firm, and stable
	Protrusions	≤ 24" Likely common and continuous	≤ 6" May be common and continuous	≤ 3" May be common, not continuous	≤ 3" Uncommon, not continuous	No protrusions
	Obstacles (Maximum Height)	24"	12"	10"	8"	No obstacles
Design Grade²	Target Grade	5% – 20%	5% – 12%	3% – 10%	2% – 8%	2% – 5%
	Short Pitch Maximum	30% 50% on downhill-only segments	25% 35% on downhill-only segments	15%	10%	8%
	Maximum Pitch Density	20% – 30% of trail	10% – 30% of trail	10% – 20% of trail	5% – 10% of trail	0% – 5% of trail

10/16/2008

Designed Use BICYCLE		Trail Class 1	Trail Class 2	Trail Class 3	Trail Class 4	Trail Class 5
Design Cross Slope	Target Cross Slope	5% – 10%	5% – 8%	3% – 8%	3% – 5%	2% – 3%
	Maximum Cross Slope	10%	10%	8%	5%	5%
Design Clearing	Height	6'	6' – 8'	8'	8' - 9'	8' - 9'
	Width	24" – 36" Some vegetation may encroach into clearing area	36" – 48" Some light vegetation may encroach into clearing area	60" – 72"	72" – 96"	72" – 96"
	Shoulder Clearance	0' – 12"	6" – 12"	6" – 12"	6" – 18"	12" – 18"
Design Turn	Radius	2' – 3'	3' – 6'	4' – 8'	8' – 10'	8' - 12'

¹ For definitions of Design Parameter attributes (e.g., Design Tread Width and Short Pitch Maximum) see FSH 2309.18, section 05.

² The determination of trail-specific design grades, design surface, and other Design Parameters should be based upon soils, hydrological conditions, use levels, erosion potential, and other factors contributing to surface stability and overall sustainability of the trail.

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Designed Use MOTORCYCLE		Trail Class 1	Trail Class 2	Trail Class 3	Trail Class 4	Trail Class 5
Design Tread Width	Single Lane	Typically not designed or actively managed for motorcycles, although use may be accepted	8" – 24"	18" – 36"	24" – 48"	Typically not designed or actively managed for motorcycles, although use may be accepted
	Double Lane		48"	48" – 60"	60" – 72"	
	Structures (Minimum Width)		36"	48"	48"	
Design Surface²	Type		Native, limited grading May be continuously rough Sections of soft or unstable tread on grades < 5% may be common and continuous	Native with some onsite borrow or imported material where needed for stabilization, occasional grading Intermittently rough Sections of soft or unstable tread on grades < 5% may be present	Native with imported materials for tread stabilization common, routine grading Minor roughness Sections of soft tread not common	
	Protrusions		≤ 6" May be common and continuous	≤ 3" May be common, not continuous	≤ 3" Uncommon, not continuous	
	Obstacles (Maximum Height)		18" May be common or placed for increased challenge	12" Common, left for increased challenge	3" Uncommon	
	Target Grade		10% – 25%	5% – 20%	3% – 10%	
Design Grade²	Short Pitch Maximum		40%	25%	15%	
	Maximum Pitch Density		20% – 40% of trail	15% – 30% of trail	10% – 20% of trail	

10/16/2008

Designed Use MOTORCYCLE		Trail Class 1	Trail Class 2	Trail Class 3	Trail Class 4	Trail Class 5
Design Cross Slope	Target Cross Slope		5% – 10%	5% – 8%	3% – 5%	
	Maximum Cross Slope		15%	10%	10%	
Design Clearing	Height		6' – 7'	6' - 8'	8' - 10'	
	Width (On steep side-hills, increase clearing on uphill side by 6" – 12")		36" – 48" Some light vegetation may encroach into clearing area	48" – 60"	60" - 72"	
	Shoulder Clearance		6" – 12"	12" – 18"	12" – 24"	
Design Turn	Radius		3' – 4'	4' – 6'	5' – 8'	

¹ For definitions of Design Parameter attributes (e.g., Design Tread Width and Short Pitch Maximum) see FSH 2309.18, section 05.

² The determination of trail-specific grades, surface, and other Design Parameters should be based upon soils, hydrological conditions, use levels, erosion potential, and other factors contributing to surface stability and overall trail sustainability.

			
<p>NAME: Easiest SYMBOL: White circle</p> <p>GENERAL</p> <ul style="list-style-type: none"> Fairly flat, wide and paved. Suitable for all users.⁹ <p>DETAILED</p> <ul style="list-style-type: none"> Maximum grade: 10% Preferred average grade: no more than 5% Maintain a minimum 2.5 m curve radius Usually associated with Trail Type IV or V <p>EXPECTED TECHNICAL TRAIL FEATURES TTFs are not appropriate for this trail level.</p>	<p>NAME: Easy SYMBOL: Green circle</p> <p>GENERAL</p> <ul style="list-style-type: none"> Gentle climbs and easily avoidable obstacles such as rocks, roots and pot-holes.¹⁰ <p>DETAILED</p> <ul style="list-style-type: none"> Maximum grade: 15% Maximum sustained climbing grade: 8% Curve radius: 2.4 m minimum Usually associated with Trail Type II or III <p>EXPECTED TECHNICAL TRAIL FEATURES GENERAL</p> <ul style="list-style-type: none"> Small roots & logs to cross Embedded rocks to avoid Wide bridges <p>DETAILED</p> <ul style="list-style-type: none"> Embedded trail obstacles: up to 10 cm. Logs and roots perpendicular to direction of travel ($\pm 15^\circ$) Bridge minimum 90 cm wide, handrail required if height of bridge above surface exceeds 60 cm Rock face descents not to exceed 25% No drops No jumps 	<p>NAME: More Difficult SYMBOL: Blue Square</p> <p>GENERAL</p> <ul style="list-style-type: none"> Challenging riding with steep slopes and/or obstacles, possibly on a narrow trail with poor traction. Requires riding experience. 11 <p>DETAILED</p> <ul style="list-style-type: none"> Maximum climbing grade: 25% Maximum sustained climbing grade: 10% Maximum descent grade on non-rock surface: 35% Curve radius: 1.8 m minimum Usually associated with Trail Type II or III <p>EXPECTED TECHNICAL TRAIL FEATURES GENERAL</p> <ul style="list-style-type: none"> TTF width to height ratio of 1:2 Small bridges (flat, wide, low and rollable from section to section) Small rollable drops Small teeter-totters Small jumps Medium sized logs <p>DETAILED</p> <ul style="list-style-type: none"> Embedded trail obstacles: up to 20 cm high Elevated bridges: less than 1.8 m (6') high above surface Minimum width of flat decking is one-half the height above surface For connected sections, the bisecting angle between each connected section must be large enough to allow the bicycle to complete transition without requiring any wheel lifting techniques <ul style="list-style-type: none"> Teeter-totter: maximum pivot height, less than 60 cm (2') high above the surface Minimum width of flat decking is one-half the height above surface at pivot point <ul style="list-style-type: none"> Rock or ramp descents not to exceed 45% Drop-offs not exceeding 30 cm high with exit cleared of all obstacles Jumps No jumps with consequences for lack of speed (for example, coffin jumps or gap jumps) Table top jumps maximum height 60 cm (2') - Jumps maximum height 45 cm (18") 	<p>NAME: Most Difficult SYMBOL: Black Diamond</p> <p>GENERAL</p> <ul style="list-style-type: none"> A mixture of long steep climbs, loose trail surfaces, numerous difficult obstacles to avoid or jump over, drop-offs and sharp corners. Some sections are definitely easier to walk.¹² <p>DETAILED</p> <ul style="list-style-type: none"> Maximum climbing grade: 30% Maximum sustained climbing grade: 15% Usually associated with Trail Type II <p>EXPECTED TECHNICAL TRAIL FEATURES GENERAL</p> <ul style="list-style-type: none"> TTF width to height ratio of 1:4 Elevated bridges and teeter-totters with maximum deck height Connected bridges Mandatory air Larger jumps Steep descents with sharp transitions <p>DETAILED</p> <ul style="list-style-type: none"> Elevated bridges: less than 3 m (10')¹³ high above surface <ul style="list-style-type: none"> Minimum width of flat decking is one-quarter the height above surface Teeter-totter: maximum pivot height less than 1.8 m (6') above surface <ul style="list-style-type: none"> Minimum width of flat decking is one-quarter the height above surface at pivot point Mandatory air less than 1.0 m (3.3') vertical Rock or ramp descents not to exceed 120% Jumps <ul style="list-style-type: none"> Table tops, no maximum height No gap jumps Rock or ramp descents not to exceed 120% Jumps <ul style="list-style-type: none"> Table tops, no maximum height No gap jumps

* The Canadian trail classification numbering is slightly different than the USFS classification. This has led to slight modifications to the trail difficulty rating system above. The Whistler trail rating system also includes most difficult (diamond) and a double diamond rated trail. These types of trails would not occur on Federal Lands currently within SWIMBA's trail building influence but could occur on private lands or bike parks.