

Appendix G. Government Camp Trail Design Narratives

Trail #2.19 - West Summit Fen - 0.6 miles

Location:

This trail would begin at the Lake Road and end on the Lake Road/Summit Trail just east of the bottom of the Multorpor Ski Lift and be located west of the Fen.

Purpose:

This trail segment would serve as the southwestern part of the hike/bike/Nordic ski/snowshoe loop around the town of Government Camp.

Project Description:

Most of this segment is new construction. There are 3 sections that utilize a cross country ski race course that was used in the 1970's. In those 3 sections, most of the tree clearing has already been done. The trail would also utilize a portion of the North Trail previously developed by Ski Bowl, only it would not use the portion of that trail that terminates on the Lake Road west of the ski lift base to avoid encouraging riders across the Lake Road onto other permitted trail systems.

Design standards:

Sustained grade	= or < 8%
Greatest short gradient (<100')	= or < 12%
Turns	Keep on gentler terrain
Clearing width	20' w/ stumps cut to 2"
Clearing height	20'
Tread width and finish	24" with 1" finish
Switchbacks	None
Sideslope of ski width*	<25% slopes
Excavated ski trail sideslope *	15%
Excavated ski trail width as needed*	15'
Drainage	Use reverse grade and drain dips
Ski width surface	See detail below.
Wet areas	Turnpike to a 24" tread width
Bridges	See detail below
ROS class	Roaded Natural

*Where the sideslope exceeds 25%, a 15' bench with a 15% sideslope would need to be constructed. The 24" tread would be within this and the remainder of the 15' width can be revegetated. In most cases this would be a balanced construction. Cut slope would be 1.5:1 in most locations. On steeper sections it may be 1:1.

Ski width surface:

To be able to operate with minimal snow cover the ski width surface needs to be relatively free of obstacles. Outside the 24" tread width but within the 20' clearing width the surface, while not graded, should be clear of protruding rocks, stumps and logs. The tops of hills and knobs are of particular note here. Short brush and ground cover is fine.

Bridges:

Two bridges are needed for the project. The 29' south bridge is proposed to be in the same location as a bridge from the old ski race course. The 25' north bridge is a new location. Both bridges would be single span meaning no midspan structure in the stream.

- 16' width for winter use. 4' width for summer use giving 32" center tread with 9" on each side for curb logs.
- Downhill grades approaching the bridges should be avoided whenever possible
- Longevity of bridge important. Tread decking should be treated. Also, consider bringing in treated or other long lasting manufactured stringers.
- Use round curbs.
- The most likely option would be to bring in sills, stringers and decking from off site. Sills and decking would be of treated lumber. The treated wood would be steam cleaned by the manufacturer. The stringers would be of an engineered material such as steel or gluelam. Curb logs would be made of small native logs averaging 6" in diameter. A good example of the kind of bridge is located on Hemlock ski trail where it crosses Still Creek itself, approximately 100' west of the Still Creek Campground Rd (2650).
- Placement of sills would require some excavation. Sill placement would be back from the banking to insure that it is not undercut and to prevent excavated material from entering the stream. Erosion control fencing would be placed just below the sill location to assist with this. The contractor would be directed to pull any material that is excavated away from the bank.
- A small tracked excavator (5' width) would be allowed on the job and may be used to prep the bridge site. The equipment would not be allowed in the stream or between the sill sites and the stream. Block and tackle may need to be placed up in larger trees near the bridge to assist in bringing the stringers across the stream. The 29' bridge is not that far from a road and a crane may be staged on the road to place the stringers.

Other structures:

- There is a 120' section of wet area that would likely need construction of turnpike. This is located directly south of the south bridge. Decking would not work here given the 10% slope of the trail.

- A second section of turnpike or puncheon (decked surface) may be needed just south of the section mentioned above. We may be able to avoid this at the cost of making the trail steeper than desired.
- A third area is located where the trail heads west from the bottom of the Multorpor chair. There is a 287' section of new construction that has some short wet areas in it. This is near the edge of the fen. It would likely need a few short section of puncheon or turnpike. Also, an area directly west of the bottom of the Multorpor chair seems to be built on fill. To get down onto the proposed trail, this fill slope is currently too steep. Approximately 19 yards of material would need to be brought in to ramp this down to the trail.

Excavation details:

The section west of the Multorpor chair has 5 sections that would need some bench construction.

- WP #10 – located north of the north bridge.
- WP # 1 – 4 are all between the south bridge and the east end of North Trail.

WP	Sideslope %	Length	Cross section width of ground exposed	Volume of material excavated in cubic yards
10	38	100	23	98.0
1	28	36	21	8.0
2	28	30	21	6.7
3	28	20	21	4.5
4	25-32	189	21	42.0

Equipment use:

The following equipment may be use during the project:

1. A small tracked excavator (5' width)
2. Chain saws
3. Chain saw winch
4. A mechanized wheelbarrow.
5. Crane that operates from existing roadway spur 128 may be used to place stingers on 29' south bridge.
6. Hand tools (shovels, pulaskis, etc.)

Time of year for construction:

Typical operating season is late May to early October.

Trail # 2.22 - Multopor Mountain Trail - 0.7 miles

Location:

The Multopor Mountain Trail would begin near the Barlow Trail at the powerline on the east side of Multopor Mountain and go to the top of Multopor Mountain.

Purpose:

This trail would provide a short summer hike that is linked with the Government Camp Loop Trail with an outstanding panoramic view at the top of Multopor Mountain.

Project Description:

This trail to the top of Multopor Mountain would primarily utilize an old fire trail, but with additional switchbacks to decrease the trail grade

Design Criteria:

Sustained grade	= or < 20%
Greatest short gradient (<300’)	= or < 30%
Switchbacks	Increase tread width
Clearing width	4’ w/ stumps cut to 4”
Clearing height	8’
Tread width and finish	18” with 4” finish
Drainage	See detail below
Bridge	None needed
Wet areas	None present
ROS class	Roaded Natural

Some drainage structures would need to be installed, particularly on the bottom half. Drain dips are the preferred method but may not be realistic in the trail’s given location. In that case, rock water bars would provide the best longevity. There is much rock in the area. The trail would not have horse use to “test” the rock water bars. Given these considerations, rock water bars would be the preference where drain dips cannot be adequately installed. A couple check dams may be needed. The very top of the mountain is a rocky point so the tread would stop just short of this point.

Equipment use:

The following equipment may be use during the project:

1. A very small trail building piece of equipment 36” width
2. Hand tools (shovels, pulaskis, etc.)
3. Chain saws
4. A mechanized wheelbarrow.

Time of year for construction:

Typical operating season is late May to early October.

Trail # 2.23 Trillium Bike Trail (Summit Airstrip to Trillium Trail) - 0.8 miles

Location:

The Summit Airstrip Trail would start at the south end of the old Summit Airstrip and go to the northeast section of the Trillium Lake Loop Trail.

Purpose:

The purpose of the trail would be to link existing trails that start at Government Camp (Hemlock and Barlow) and lightly used Forest Road 2650 through Still Creek Campground to provide safer hike/mountain bike access to the popular Trillium Lake Trail and the lake itself. Currently these visitors use the busy paved road that accesses Trillium Lake. In addition it would provide a missing segment of a short mountain bike loop when combined with the gravel roads on the west and north side of Trillium Lake.

Project Description:

Construct a trail from the south end of the old airstrip connecting to the existing Trillium Lake Loop Trail just north of the Trillium Lake Campground. Construct to meet the lower end of more difficult standard for mountain bikers, which would make it an easier hiker trail.

Design Criteria:

Sustained grade	= or < 10%
Greatest short gradient (<100’)	= or < 15%
Turns	Keep on gentler terrain
Clearing width	4’ w/ stumps cut to 4”
Clearing height	8’
Tread width and finish	24” with 2” finish
Drainage	Reverse grades and drain dips
Switchbacks	None
Bridge	See detail below
Wet areas	Short turnpike at bridge approaches
ROS class	Roaded Natural

Reverse grades would be built in to help not only with drainage but to keep provide short breaks on uphill climbs and check speed somewhat on the downhill section. Signing where the trail meets with the Trillium Lake Trail would need to direct bikes toward the campground and warn trail users of the shared uses on this section. Brushing or clearing along this shared section may be necessary to ensure adequate sight distance along the shared route. On the northern section of trail between the airstrip and the creek crossing, the trail would need to stay within the road prism of the 2656 road to avoid cultural resource concerns.

Bridge details:

There is one creek crossing that would need a bridge. It should be a 4’ wide (30” tread with 9” on each side for curbs) decked bridge with round curbs. The bridge would be less than 10’ and less than 4’ off the water. Treated stringers would give longevity to the bridge. It is very close to the road so stringers could easily be brought in.

Equipment use:

The following equipment may be used during the project:

5. A very small trail building piece of equipment 36" width
6. Hand tools (shovels, pulaskis, etc.)
7. Chain saws
8. A mechanized wheelbarrow.

Time of year for construction:

Typical operating season is late May to early October.

Trail # 2.28 - East Summit Trail Extension 0.1 miles

Location:

This trail begins at the old Summit Forest Service Compound near the beginning of the Hemlock Trail and would travel west through an area that housed a large PGE generator and connect with the East Summit Trail.

Purpose:

This short trail segment (which is used in the winter already) would link several trails (East Summit, Hemlock and Barlow) together and close the loop around Government Camp. The segment would be open to hikers and mountain bikes in the summer and cross country skiing and snowshoeing in the winter

Project Description:

This segment is primarily on the ground that the old generator site utilized and is less than a 0.1 of a mile. Clearing is limited to brush. Skiers have been utilizing this route for more than 20 years but tread construction would be necessary for summer use.

Design standards:

Sustained grade	= or < 8%
Greatest short gradient (<100’)	= or < 12%
Turns	Keep on gentler terrain
Clearing width	20’ w/ stumps cut to 2”
Clearing height	20’
Tread width and finish	24” with 1” finish
Switchbacks	None
Drainage	Use reverse grade and drain dips
ROS class	Roaded Natural

Barrier posts would be installed adjacent to the Summit Compound to block vehicle access to the trail. No significant side slope exists.

Equipment use:

The following equipment may be used during the project:

1. Hand tools (shovels, pulaskis, etc.)
2. Chain saws
3. A mechanized wheelbarrow.

Time of year for construction:

Typical operating season is late May to early October.

Trail # 2.6 - Barlow Tie Trail 0.1 miles

Location: The Barlow Tie Trail would be located between the East Summit Trail and Barlow Trail.

Purpose:

This short trail segment would replace a steep, poorly located connection between East Summit Trail and Barlow Trail . The current trail is a straight shot down a short hill, has significant erosion and is a most difficult grade for cross country skiers. The trail was not constructed for hikers or mountain bikers and it is getting significant use by these summer visitors. The purpose of this project is to reroute the trail to create an easier route for mountain bikers, hikers, skiers, and snowshoers and eliminate the erosion problem. The upper part of the Barlow Trails could be groomed. However, the lower section of the Barlow as well as the proposed Tie section would generally not be groomed by a snowcat without special authorization because it connects to a historic section of the Barlow Trail that cannot accommodate a snowcat. Groomed access would be on the Hemlock Trail.

Project Description:

Relocation of the short connector trail between the Barlow Trail and Summit Trail would reduce the existing grade of the route but would still be at the low end of “more difficult” due to the terrain change. The old trail would be rehabilitated. Trees and brush would be planted so that over time the clearing from the old winter trail would not be apparent.

Design Standards:

Sustained grade	= or < 8%
Greatest short gradient (<100’)	= or < 12%
Turns	Keep on gentler terrain
Clearing width	20’ w/ stumps cut to 4”
Clearing height	20’
Tread width and finish	18”” with 2” finish
Switchbacks	There are none
Drainage	Use reverse grade and drain dips
Wet areas	There are none.
Bridges	There are none.
ROS class	Roaded Natural

Equipment use:

The following equipment may be used during the project:

1. A small tracked excavator (5’ width)
2. Hand tools (shovels, pulaskis, etc.)
3. Chain saws
4. A mechanized wheelbarrow.

Time of year for construction:

Typical operating season is late May to early October.

Trail #2.2 and # 2.3 - West Blossom Connector (0.3 miles) and Crosstown Thunderhead Tie - (0.5 miles)

Location: The West Blossom Connector goes from the stop sign at the west end of the Government Camp Loop Road and connects to the Crosstown Thunderhead Tie Trail. The Crosstown Thunderhead Tie Trail starts at Thunderhead Trailhead and connects to the Crosstown Trail near Enid Lake.

Purpose: These two trails when combined with the existing Crosstown Trail would form the northwest corner of the loop trail around Government Camp. The Crosstown Thunderhead Tie Trail would also provide a year round smaller loop opportunity when combined with Skiway, Wally’s Tie, and Crosstown Trails beginning and ending at Thunderhead Trailhead. The West Blossom Connector would terminate at Highway 26 across from the Lake Road Trailhead where the southern half of the Government Camp Loop Trail starts. Both of the trails would be designed for hike/mountain bike/Nordic skiing/snowshoeing. The trails would be capable of being groomed by a small tracksetter/groomer machine. The trails access some popular huckleberry picking and mushrooming areas.

Project Description: The Crosstown Thunderhead Trail would be constructed on a contour from Thunderhead Lodge Trailhead, to the powerline to the west, then downhill to connect with the Crosstown trail. The West Blossom Connector would start near the stop sign and follow the contour north to where it intersects with the Crosstown Thunderhead Tie. All work would be done with mechanical equipment initially and handwork to finish. Clearing would be done by hand crew. Brush and trees would be lopped and scattered outside of the clearing limits.

Design Standard: Construction would meet the minimum standard as prescribed as More Difficult for Mountain Bikes and Easiest for Cross Country Skiing. Grades would be less than 8%, and clearing widths would be 20’ to open the canopy for snow capture. Trail tread would be constructed to a 24 inch width with drain dips designed into the grade to minimize the need for drainage structures. Tread would generally be sloped to the outside at a grade not exceeding 5% except in drain dips where the slope could be 10% at the bottom of the drain dip. Tread finish goal would be to keep obstructions lower than one inch. There is one stretch of wetlands near the powerline that cannot be avoided. Therefore, the trail would be constructed on puncheon structure or turnpike in this area to minimize effects on the wet habitat. Trail building machines or motorized vehicles would not be allowed to travel or work directly in wet areas

Design Standard Summary:

Sustained grade	= or < 8% outslope tread 3% or crown
Greatest short gradient (<100’)	= or < 12%
Turns	Keep on gentler terrain
Clearing width	20’ w/ stumps cut to 2’’
Clearing height	20’
Tread width and finish	24’’ with 1’’ finish
Switchbacks	None
Drainage	Use reverse grade and drain dips
Wet areas	Turnpike to a 24’’ tread width

ROS class	Roaded Natural
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Equipment use:

The following equipment may be used during the project:

1. A small tracked excavator (5' width)
2. Hand tools (shovels, pulaskis, etc.)
3. Chain saws
4. A mechanized wheelbarrow.

Time of year for construction:

Typical operating season is late May to early October.

Trail # 2.4 - Camp Creek Trail -1 mile

Location: This trail starts at the Alpine Ski Trail just above the Summit Ski Area. The trail traverses to the west on a slight downhill grade and connects to the Crosstown Trail at a point just east of the Glade Ski Trail. The trail would be approximately one mile in length. The first quarter mile is located on an old cross country ski trail route developed by Summit Ski Area.

Purpose: The purpose of this trail would be to create a lesser grade trail that connects from the Alpine Trail/West Leg system over to Crosstown without going through the Summit Ski Area or using the steep waterline road. The trail would be open year round and would be capable of being groomed by a small tracksetter/groomer machine.

Project Description: Construct a connector trail from Alpine Trail to Crosstown trail. The trail would be open to Mountain bikes in the summer and cross country skiing in the winter. Grades would generally be less than 8% with 5% being the target sustained grade. Reverse grades would be designed in at intervals as rest grades and doubling as drain dips. Approximately one mile of trail would be constructed. All work would be done with mechanical equipment initially and handwork to finish. Clearing would be done by hand crew. Brush and trees would be lopped and scattered outside of the clearing limits. There are approximately 5 stream crossings on this trail. Each crossing would require a bridge. Bridges would be built with a combination of treated and untreated wood. Local material for the bridge would be utilized where possible. Bridges would be built wide enough and strong enough to support a small groomer.

Design Criteria: Construction would meet the minimum standard as prescribed for More Difficult for Mountain Bikes and Easiest for Cross Country Skiing. The work would meet the ROS setting for Roded natural and is entirely outside of Wilderness.

The trails would be summer and winter use. Trail would open to hikers, mountain bikes and closed to horses and motorized use except for groomers. Grades would be less than 8%, clearing widths would be 20' to open the canopy for snow capture. Trail tread would be constructed to a 18 inch width with drain dips designed into the grade to minimize the need for drainage structures. Wet areas would be avoided. In areas where wet areas cannot be avoided, the trail would be constructed on puncheon structure or turnpiked to minimize effects on the wet environment. Approximately 5 bridges would be constructed. The travelway portion of the bridges would be constructed of treated materials. The aprons needed to support snow and snow machines would be constructed of local material (logs) obtained near the crossings. Bridges would be constructed using a tracked excavator working from either side of the drainage but not in the drainage.

The use of trail digging machines on the project would be approved as well as ORV's for use by the contractor except as noted above.

Trail use: The trail would be primarily used by mountain bikes and hikers in the summer and cross country skiers in the winter. The trail accesses popular huckleberry picking areas and mushrooming areas.

Design Standard Summary:

Sustained grade	= or < 8% outslope tread 3% or crown
Greatest short gradient (<100’)	= or < 12%
Turns	Keep on gentler terrain
Clearing width	20’ w/ stumps cut to 2”
Clearing height	20’
Tread width and finish	18” with 1” finish
Switchbacks	None
Sideslope of ski width*	<30%
Excavated ski trail sideslope *	15% maximum
Excavated ski trail width as needed*	15’
Drainage	Use reverse grade and drain dips
Ski width surface	See detail below.
Wet areas	Turnpike to a 24” tread width
Bridges	See detail below
ROS class	Roaded Natural

*Where the sideslope exceeds 30%, a 15’ bench with a 15% sideslope would need to be constructed. The 24” tread would be within this and the remainder of the 15’ width can be revegetated.

Ski width surface:

To be able to operate with minimal snow cover the ski width surface needs to be relatively free of obstacles. Outside the 24” tread width but within the 20’ clearing width the surface, while not graded, should be clear of protruding rocks, stumps and logs. The tops of hills and knobs are of particular note here. Short brush and ground cover is fine.

Bridges:

- 16’ width for winter use. Trees may be harvested for stingers.
- 4’ width for summer use giving 32” center tread with 9” on each side for curb logs.
- Downhill grades approaching the bridges should be avoided whenever possible
- Longevity of bridge important. Tread decking should be treated. Also, consider bringing in treated or other long lasting manufactured stingers.
- Use round curbs.
- 5 significant bridges are needed.

Equipment use:

The following equipment may be used during the project:

5. A small tracked excavator (5’ width)
6. Hand tools (shovels, pulaskis, etc.)
7. Chain saws
8. A mechanized wheelbarrow.

Time of year for construction:

Typical operating season is late May to early October.

Trail # 2.26 Timberline To Town Trail - 5.5 miles

Location: This trail would start at an area just west of the bottom terminal of the Magic Mile Lift and continue down to Crosstown Trail/Glade Trail Junction. The length of trail is approximately 5.5 miles long.

Purpose: The purpose of the trail would be to offer a relatively easy mountain bike, hiker, route between Timberline Lodge and Government Camp that meets current trail standards for Mountain Bike More Difficult . The current Glade Trail exceeds standards for steepness and is experiencing severe erosion caused mainly by excessive use by mountain bikes. The new trail would be rideable in either direction and brings users into some very interesting environments not experienced on the existing route.

Project Description: The trail would be open to Mountain bikes and hikers in the summer. While cross country skiers could choose to use it in the winter, it would not be cleared to the width that other trails are being designed and would therefore be more difficult to most difficult. Grades would generally be less than 8% with 5% or less being the target sustained grade. Reverse grades would be designed in at intervals as rest grades and doubling as drain dips. Approximately 5.5 miles of trail would be constructed. All work would be done with mechanical equipment initially and handwork to finish. Clearing would be done by hand crew. Brush and trees would be lopped and scattered outside of the clearing limits. No stream crossings or wet areas exist in the project area.

Design Criteria: Construction would meet the minimum standard as prescribed as More Difficult for Mountain Bikes in the 2309.18 Trails Management Handbook. The work would meet the ROS setting for Roded natural and is entirely outside of *existing* Wilderness.

The trail would be designed for generally summer use. The trail would open to hikers and mountain bikes, and closed to horses and motorized use. Grades would be less than 8%, clearing width would be 6 to 10 feet depending on site distance needs. Trail tread would be constructed to an 18 inch width with drain dips designed into the grade to minimize the need for drainage structures.

The use of trail digging machines on the project would be approved as well as ORV's for use by the contractor.

Design Standard Summary:

Sustained grade	= or < 8% , outslope tread 3%
Greatest short gradient (<100')	= or < 12%
Turns	Keep on gentler terrain
Clearing width	20' w/ stumps cut to 4"
Clearing height	20'
Tread width and finish	18" with 2" finish
Switchbacks and climbing turns	There are many
Drainage	Use reverse grade and drain dips

Wet areas	There are none.
Bridges	There are none.
ROS class	Roaded Natural

Equipment use:

The following equipment may be used during the project:

- 9. A small tracked excavator (5' width)
- 10. Hand tools (shovels, pulaskis, etc.)
- 11. Chain saws
- 12. A mechanized wheelbarrow.

Time of year for construction:

Typical operating season is late May to early October.

Trail # 2.29 South Multorpor Trail - 1.7 miles

Location: The trail would begin on its west end by crossing and climbing the downhill ski runs adjacent to the Multorpor Ski Lift following the Optimator Trail that Ski Bowl utilizes as part of its summer mountain bike program. It would follow the Optimator for a short section to gain elevation before heading southeast to climb up to the saddle. The South Multorpor Trail would then roughly parallel the Optimator Trail uphill. This winter only trail would not have tread, but would have 20 foot clearing and excavation for sideslopes to accommodate a groomer. The trail would then head around the east side of Multorpor Mountain and tie in with the Barlow Tie Trail on the east end of it..

Purpose: The South Multorpor Trail would be open to cross country skier and snowshoes. A key objective of the trail is to provide an alternate route that avoids the congestion at the Multorpor Lodge area in winter while maintaining most of the Optimator as a single track summer mountain bike trail.

Design standards:

Sustained grade	= or < 8%
Greatest short gradient (<300’)	= or < 16%
Turns	Keep on gentler terrain
Clearing width	20’ w/ stumps cut to 2”
Clearing height	20’
Tread width and finish	None
Sideslope of ski width*	<25% slopes
Excavated ski trail sideslope *	15%
Excavated ski trail width as needed*	15’
Drainage	Use reverse grade and drain dips
Ski width surface	See detail below.
Wet areas	Turnpike as needed for winter use
ROS class	Roaded Natural

*Where the sideslope exceeds 25%, a 15’ bench with a 15% sideslope would need to be constructed. The 15’ width can be revegetated but kept clear of taller trees, protruding rocks, stumps and logs. Short brush and ground cover is fine. In most cases this would be a balanced construction. Cut slope would be 1.5:1 in most locations. On steeper section it may be 1:1.

Excavation details:

There are 2 sections that would need excavation to reduce the side slope for grooming operations.

Section	Sideslope %	Length	Cross section width of ground exposed	Volume of material excavated in cubic yards
West and south side of Multorpor	Average 45%	3000'	24	133
East side	Average 28%	200'	21	44

Equipment use:

The following equipment may be used during the project:

13. A small tracked excavator (5' width)
14. Hand tools (shovels, pulaskis, etc.)
15. Chain saws
16. A mechanized wheelbarrow.

Time of year for construction:

Typical operating season is late May to early October.

Appendix H – Trail Project Estimated Construction Costs and Potential Funding Sources for Construction and Longterm Maintenance

Below are estimated trail project construction costs. More refined engineering cost estimates will be determined after a Decision Notice is signed for the approved projects and staff completed the “survey and design” stage for the projects in preparation of construction contracts.

Government Camp Trails Estimated Project Costs

Project #	Trail Name	Estimated Cost
Proposed Action Alternative #2		
2.19	West Summit Fen	\$58,392
2.22	Multorpor Mt.	\$30,360
2.28	East Summit Trail Extension	\$1,680
2.6	Barlow Tie	\$2,328
2.2 & 2.3	Crosstown Thunderhead Tie West Blossom Connector	\$28,368
2.4	Camp Creek Trail	\$97,680
2.26	Timberline to Town	\$144,072
2.23	Trillium Bike	\$27,720
	Existing Trail Upgrades	\$72,000
	Proposed Parking	\$125,000
	Total Cost	\$587,600

Alternative #3 Multorpor Mt. South		
	All projects above plus:	\$587,600
2.29	Multorpor Mt. South Trail	\$195,000
	Total Cost	\$782,600

Potential Funding Sources for Construction

There are numerous potential funding sources for construction of the proposed trail system, trailheads, and signing. In all likelihood many of the trail projects would be funded through a combination of sources. If approved in a Decision Notice, priorities and timing for trail construction would be determined based on community input and funding availability. The information below is based on recent granting and funding criteria. Criteria for future grants from these sources may be changed by the people managing the grant and funding programs. This list is not exhaustive and funding if trail projects are approved, funding opportunities would be pursued as they are available and awarded to the projects. Sources for trail projects construction include:

Clackamas County Government Camp Tax Increment Financing District (TIF): The Government Camp TIF Advisory Board and the Clackamas County Board of Commissioners that oversees the Government Camp TIF District, has approved construction of trails around the community in concept. Specific construction projects would require individual approval by the TIF Board and the County Commissioners.

Oregon State Parks Recreational Trail Grant Program: The Oregon State Parks Department awards grants for trail construction and reconstruction and for trailhead parking. At least 20% matching funds are required to compete for the grants. Because the proposed trails are analyzed in a Trails Master Plan and environmental assessment is complete, and because these proposed trails meet several other competitive criteria outlined by the State, they would compete fairly well for grant funding.

Forest Service Grants including Challenge Cost Share and Centennial Grants: The Forest Service has a variety of grant opportunities that vary from year to year depending on funding availability. The attractiveness of the proposed project to meet key recreational needs would make it competitive for many of these grant opportunities.

The National Forest Foundation (NFF): The National Forest Foundation is a non-profit granting body that also requires at least 50% cash matches for projects. The proposed trails system could be competitive for these funds assuming a cash match could be made. The grant usually requires the project be done in one year, so projects would likely need to be designed in smaller sections to accomplish this requirement if these funds were used.

Oregon Transportation Enhancement Program: This program reimbursed agencies for projects that meet the criteria. The criteria includes development of shared use trails. The program also requires at least an 11% match and the project must be at least \$200,000 unless an exception is made.

Cost Share Agreements: In some cases, Forest Service permittees are required to mitigate impacts for a project that they are implementing. Mitigation for the Oregon Department of Transportation to get a permit to remove gravel out of the Tamarack Quarry in the Mud Creek area, requires that they contribute funding towards an off-road trail near Road 2656. The Trillium Bike Trail could be partially or completely funded by this source. The funds would be

collected by the Forest Service from ODOT and paid to a trail construction contractor, or constructed by Forest Service staff.

Forest Service Trails Capital Investment Project (CIP) Funds: Congress allocates funds to the National Forest system annually to construct and reconstruct trails. Criteria for these funds in the past have favored reconstruction of existing trails. However, new construction of trails in high recreation areas and close to large metro populations, especially when they have matching fund sources are ranked well. These funds usually take 2-4 years in the pipeline from time of application to become available for trail contracts. They include funds for survey and design of the trail system.

Potential Funding Sources for Trails Maintenance

Usually, trail planners do not flush out trail maintenance options for trails that have yet to be constructed. However, these days the Forest Service has a backlog of trails that need reconstruction - in some cases because they have not had adequate maintenance on them. In other cases, the trails were poorly located, poorly designed, poorly constructed, or all of the above. In any event, the Forest does not want to construct trails that cannot be maintained in the future. The proposed trails have several positive features that make future maintenance of the trail system favorable including:

- ❖ **Designed Trail Standards:** The proposed trails would be designed with standards for the intended uses. Many mountain bike trails were never designed as such and were designated when mountain bikes became popular in order to give them a place to go. Many of the non-wilderness trails on the Mt. Hood National Forest were allocated to mountain bikes despite never being designed for that use. Trails designed for the intended uses generally have much less trail maintenance problems.
- ❖ **Non-wilderness Status:** The proposed trail system is not in wilderness so it could be maintained with motorized equipment including chainsaws and brush saws. With the large amount of rainfall in the Government Camp area, brush can grow quickly. Brush saws are much faster than using hand loppers to cut each stem along a trail. Chainsaws can generally be faster than cross-cut saws to remove down logs across the trail. The quicker and easier the work is to do, the more likely it is to get done.
- ❖ **Close In, Easily Accessible and a Variety of Users:** The trails are in the “front country” and adjacent to the community and are therefore very attractive for volunteer trail maintenance projects. Trail maintenance by volunteers is most viable on trails that are less than 3 miles from a trailhead. Otherwise the hike in and out is too long to accomplish day long trail work parties. The trails around the community are easily accessible by both volunteers and trail crew personnel in a variety of locations. Many community members may choose to adopt sections of trail for trail maintenance. Many user groups including Nordic Club, mountain bike groups, trail tending groups, and other service organizations would likely be attracted to trail maintenance work parties on these trails. The Mt. Hood National Forest has a very successful volunteer trail maintenance program.

The proposed Government Camp Trails system could be maintained with a variety of options. In all likelihood, the trails would be maintained with some sort of combination of options. Options for maintaining the proposed Government Camp Trails system include:

- ✿ **Volunteers:** As mentioned above, the close proximity and accessibility of these trails, as well as the likely popularity of the trails with community members and user groups make it probable that all or at least portions of the trail maintenance could be done with volunteers. Volunteers must undergo some safety training including special training to operate chainsaws. The amount of supervision they receive depends on their skills and abilities. Inexperienced volunteers are supervised by skilled trail crew leaders. Winter grooming of the Nordic trails could also be done by volunteers and equipment funded with donations from users as is done in the Trillium Basin and Teacup Lakes Basin currently.
- ✿ **Northwest Forest Pass Program:** The Recreation Fee Authority passed by Congress in 2005 allowed the Forest Service to charge for sites that met certain amenities. It is possible that trailheads for the proposed trail system could be put under the Northwest Forest Pass program. A total of 80% of the funds collected from the sales of Northwest Forest passes are used directly on the ground for trail and trailhead maintenance. The maintenance of the proposed trails could be paid for with Northwest Forest Pass funds if they were included on the site list and met the criteria. Winter grooming of the Nordic trails could be paid for with Northwest Forest pass funds if they met the criteria.
- ✿ **National Forest System Trail Maintenance Funds.** Congress annually allocates the National Forest funds to maintain trails. These funds are available to be used on the proposed trail system. In many of the trails on the Zigzag Ranger District, the Forest uses a combination of Congressionally allocated funds, Northwest Forest pass funds, and volunteers to maintain trails.
- ✿ **Government Camp Maintenance Mechanism:** The community of Government Camp is working with the County Commissioners to explore funding options to pay for maintenance of improvements funded through TIF such as replacing light bulbs on new light posts, etc. Options they are exploring include formation of a “Maintenance District” as well as obtaining County “village” status that would allow some form of self government through the County. It is possible that maintenance of proposed trail system signs or trailheads could be partially funded through this mechanism.
- ✿ **Partnership with the County and/or the community:** In areas around the country like Sun Valley, Idaho and the Methow Valley in Washington, the Forest Service has partnered with the local community, the County, and or a non-profit recreational organization to construct, maintain, groom and operate an extensive year round trail system. All have a different structure, but in many cases, the local non-profit community organization oversees the day to day operations, grooming and maintenance. The County serves as a fiscal agent. The Forest Service provides the infrastructure and other support and materials. There are several examples of successful partnerships that could be duplicated for the Government Camp Trails system.