

Belleayre Mountain Hiking and Mountain Biking Trail Masterplan

EXECUTIVE SUMMARY

Tahawus Trails LLC proposes the improvement and development of 31 miles of trails within the Belleayre Intensive Use Area to create a regional mountain bike destination at Belleayre Mountain to supplement the planned trail system on the adjacent Shandaken Wild Forest Lands. The final trail system will be 35.31 miles in total.

SUMARY OF PROPOSED TRAIL MILEAGE WITHIN INTENSIVE USE AREA

Existing Trails (Miles)	15.63
Proposed New Trail Construction and Existing Trail Reconstruction (Miles)	31.09
Final Total Trail Mileage (excludes Alpine Ski Trails and Railroad)	35.31
Existing Trail Mileage to be retained with no improvements	4.22
Total Miles of Easiest Trails (Green Circle)	15.6
Total Miles of More Difficult Trails (Blue Square)	14.02
Total Miles of Most Difficult Trail (Black Diamond)	2.6

STREAM CROSSINGS

Total # of New Bridges (>10 feet) at Major Stream Crossings



SUMMARY OF PROPOSED NEW BIKING TRAILS

Trail Name:	Proposed Length	Proposed Width	% of Trail Requiring Clearing	Length of Trail Requiring Clearing	Length of Trail Using Existing Trails	Applicable Construction Methods
	(Miles)	(Feet)	%	(Miles)	(Miles)	BMPs and Typical Detail Pages
A. Ridge Loop	2.8	6	40	1.12	1.68	5, 6, 7, 9
B. Easiest Descent (Central Green)	5.23	5	55	2.88	2.35	5, 6, 7, 8, 9, 10, 14, 15, 16, 17
C. Easy Out	0.92	4	50	0.46	0.46	5, 6, 7, 9, 10, 11, 15, 16, 17
D. Route 28 Connector	0.29	3	100	0.29	0.00	5, 6, 7, 9
E. Shandaken Traverse	1.9	5	68	1.3	0.6	5, 6, 7, 8, 9, 10, 11, 15, 16, 17
F. Nordic Trails	4.5	5 to 30	25	1.14	3.36	5, 6, 7, 8, 9, 10, 11, 15, 16, 17
G. Pine Hill Connector	0.25	3	100	0.25	0.00	5, 6, 7, 9
H. Cathedral	4.0	5	95	3.75	0.25	5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
I. Deer Run Ridge	0.85	5	90	0.77	0.09	5, 6, 7, 8, 9, 11, 12, 13, 14, 17
J. South Face	1.25	5	100	1.25	0.00	5, 6, 7, 8, 9, 11, 12, 13, 14, 17
K. Lower Central	1.1	5	55	0.6	0.5	5, 6, 7, 8, 9, 12, 13, 14, 17
L. Cayuga	1.3	4	38	0.8	0.5	5, 6, 7, 8, 9, 12, 13, 14, 17
M. Woodchuck Ridge – Giggle Hollow (Pine Hill West Branch Hiking Trail)	4.1	4	63	2.6	1.5	5, 6, 7, 8, 9, 17
N. Deer Run	2.6	3	72	1.85	0.75	5, 6, 7, 8, 9, 11, 12, 13, 14,



SUMMARY OF EXISTING HIKING TRAILS

Trail Name:	Existing	Proposed	Notes
	Length:	Length:	
	(Miles)	(Miles)	
Cathedral Glen	1.6	2.05	Shared use – mileage included in New Bike Trails. Uses existing alignments, and re-construction co-aligned with Cathedral Ridge
Pine Hill West Branch	1.4	2.05	Shared use – mileage included in New Bike Trails. Uses existing alignment and new sections co-aligned with Woodchuck Ridge Mountain Bike Trail
Giggle Hollow Trail	1.83	2.81	Parts are shared use. Uses existing alignment and new sections co-aligned with Beach Access Mountain Bike Trail
Deer Run Trail	2.0	2.0	Alpine Ski Trail
Roaring Brook Trail	1.0	1.0	Alpine Ski Trail
Discovery Way	.85	.85	Alpine Ski Trail
Nordic (XC) Ski Trails	3.5	4.5	Parts are shared use. Uses existing alignment and new alignments.
Ulster and Delaware Railroad	1.45	1.45	

SUMMARY OF EXISTING BIKING TRAILS

Trail Name:	Existing Length:	Proposed Length:	Change in Length:	Existing Width:	Proposed Width:	Clearing Required:	
	(Miles)	(Miles)	(Miles)	(Feet)	(Feet)	(Fe	eet)
1) Discovery Way to Glen Pond	1.42	1.42	0	1.5	1.5		0
2) Overlook Race Course	2.18	0	-2.18	0 to 2	n/a	ı	n/a

PROPOSED SKILLS PARK

Skills parks are a common feature at modern bike parks. These areas can range from a few hundred square feet to an acre or more and are generally the first feature of the bike park that visitors are drawn to. Skills parks offer a variety of riding features, such as rollers, berms, drops, balance beams and other obstacles, where riders can practice skills before taking them to the trails. These features will often be progressive in size or difficulty so riders can work their way from easier to more difficult skills. (ie: wide balance beam, narrow balance beam, "S" balance beam) This space can be used for warm up, practice, taking a break between chairlift runs, testing rental bikes or participating in educational clinics. The intention of this area is progression and education.

The proposed skills park at Belleayre is located just north of the First Aid building near Discovery Lodge. This skills area will be about an ¾ acre in size and requires no tree cutting.



PART I - Overview

The Olympic Regional Development Authority (ORDA) seeks to develop hiking and mountain biking recreational trails to be independent and serviced by lifts at Belleayre Mountain Ski Center. The Ski Center is on land owned by NYS and overseen by the Department of Environmental Conservation (DEC), as such all new developments need to be incorporated into Unit Management Plans approved by the DEC. The goal of this masterplan is to develop a conceptual plan for a world class independent and lift-serviced summer recreation trail system to be included as an appendix in the Belleayre Intensive Use Area UMP.

Staff from Tahawus Trails LLC spent several weeks in the Spring of 2021 assessing the existing trails and scouting new opportunities to improve and expand upon the existing hiking and biking experiences at Whiteface. In addition, the team of Tahawus Trails LLC and Sinuosity LLC surveyed potential trail connections on the new Shandaken Wild Forest lands and Belleayre Intensive Use Area lands in in 2017, which culminated in a conceptual masterplan in 2018.

The following site-specific objectives and key control / access points were pre-determined as guides to the trail network.

- Hiking and Mountain Biking interconnections between Belleayre Mountain Ski Center and the Shandaken Wild Forest, according to the NYSDEC Shandaken Wild Forest Unit Management Plan Amendment.
- Include parking / trailhead access points at Belleayre Beach and at the front entrance sign on NY28.
- The Ulster County Rail Trail (which will use the Delaware and Ulster Railroad grade) will also be considered at connected locations.
- Within the intensive use area, start/end points will also include:
 - Discovery Lodge (bottom of Gondola)
 - Top of Gondola

Our assessments, recommendations, and proposals are provided in this document.

Opportunities and Constraints

Belleayre's Unique Positioning as a Summer Destination

The opportunity is ripe for Belleayre to become a popular mountain bike and summer hiking destination for all the same reasons that make it a popular ski mountain. Belleayre's notoriety is as a family friendly ski mountain with an abundance of easier and intermediate ski trails with easy access to New York



metropolitan area. It is one of larger lift serviced mountains within a 2- hours' drive New York City and the one of few in that range and the only within the Catskills with a gondola.

The relatively large elevation difference between the summit and Discovery lodge, along with the abundance of available terrain, make it an ideal destination for beginner and intermediate riders as well as those seeking larger adventures.

Interconnectivity

The route 28 corridor between Big Indian and Highmount is poised to become a major regional destination for mountain biking. With 10.3 miles of mountain bike trails planned on the new Shandaken Wild Forest parcels between Lost Clove Rd in Big Indian and the Belleayre Beach Day use area in Pine Hill, there is a critical opportunity to expand on that network by linking in the Belleayre Intensive Use Area, which is already contiguously integrated at the Giggle Hollow drainage.

With the development of downhill lift services biking as well as cross country opportunities in the north and eastern half of the unit, Belleayre can serve as a major hub and trailhead for the area.

The existing hiking trails that provide connections to the Big Indian Wilderness to the south as well as the Cathedral Glen ravine already provide unique opportunities for more secluded hiking right from the village of Pine Hill or from the summit of Belleayre.

Finally, if the Ulster and Delaware Railroad grade were to be developed, it would provide a world class shared use trail potential with connectivity between the many trails proposed in this and the Shandaken Wild Forest UMP as well as the trail networks in the two counties.

Views

All the existing year-round views within the unit are on the alpine ski trails with the most dramatic being from the summit ridgeline. These along with the gondola are currently what stands Belleayre apart from other ski areas in the region. Designated hiking and biking trails along the summit ridge capitalize on the spectacular viewsheds currently available.

Existing Ski Trails

The existing alpine ski trails provide special opportunities for hiking but more limited mountain biking opportunities.

For hiking, the lower mountain trails are generally moderately graded and receive little vehicular traffic. On the upper mountain, the more moderately graded trails are best suited for hiking, in particular Roaring Brook and Upper Deer Run. However, due to their frequent use by vehicles, the walking surface is in places rough and gravelly. Several cross-mountain maintenance access roads are also well suited to hiking but generally lack the views which are available on the two flank trails.

For mountain biking, due to the suitability of grades, the lower mountain alpine trails provide more opportunities than the upper mountain. On the Upper Mountain, nearly all trails are too steeply graded to accommodate all but the most advanced riders and even for those riders the experience on those trails is monotonous and lacks special interest to be a major draw.

Overall, the proposed trail plan utilizes the forested corridors between or adjacent to the existing alpine ski trails to avoid snow making and grooming operations that may prematurely deteriorate or destroy constructed tread, berms and other features. When the proposed mountain bike trails utilize existing



alpine ski trails, they should meander across them and have turns and features placed along their edges. When the proposed trails cross steeper existing alpine trails, they need to be benched into the hillside. This is only possible on moderately graded slopes where those cuts can be filled in by snowmaking operations and won't be damaged by winter grooming. For this reason, the steeper trails on the upper mountain can only be crossed in rare circumstances where deep bench cuts are not required.

Soils, Bedrock, and Rock Features

As with most of the taller Catskill Mountains, soil depth to bedrock is lesser at higher elevations. This is evident on the upslope cuts of Roaring Brook and Deer Run alpine trails where the bedrock is exposed, has been broken away, and the soil horizons are visible. Even when the soil depths are sufficient for sustainable trail construction, large rocks are often prevalent and create construction challenges. There are exposed bands of bedrock ledges above 2,500 ft in elevation which create similar trail routing constraints. However, these same rock features can offer opportunities for interesting trails by highlighting the unique geology of the Catskills and adding challenging features to the more advanced trails.

Streams, Drainages and Ravines

There are four major stream drainages within the Intensive Use Area from east to west they are: Giggle Hollow, Woodchuck Hollow, Cathedral Glen / Brook, and Crystal Brook. The eastern three create the deepest drainages, with the eastern facing banks very steep and constraining for trail development. Crystal Brook drains most of the terrain on the west side of ski area and is crossed by the lower Deer Run trails.

Trail crossings of each of these drainages poses issues further down the drainages where the water volume is greatest. In most cases, bridges are needed to cross the lower elevations of the drainages where the streams are well formed, and suitable crossings often dictate the trail locations. Higher on the mountain slopes there are numerous seasonal feeder streams that feed into these drains. These are easier to build through but require crossings at a contour to restrict re-diverting the water down the trails. Smaller seasonal drainages can be crossed with stone paved swales, culverts, boardwalks, or small bridges.

Lift Access and Developed Facilities

With the only gondola in the region and the state-of-the-art base lodge at Discovery, Belleayre already has much of the key infrastructure in place to support world class summer trail system. Use of a single lift to service the trails from the top of the mountain does require a flat start to many of the trails. To access trails on the eastern slopes of the Intensive Use Area, the descent is delayed. Parking and trail access points are also relatively abundant at Belleayre. There are access points at Discovery Lodge, the Maintenance Buildings (Nordic Ski Area), at Rt 28 in Highmount, in Pine Hill (via Woodchuck Hollow Road and Bonnie View Road), at a pull of near the end of Woodchuck Hollow Road, and at the Belleayre Beach Day Use Area.

Part II - Hiking Trails

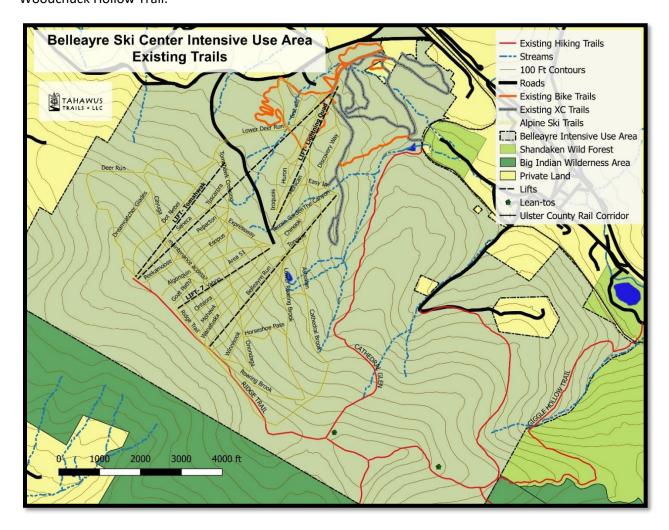
There are officially five designated hiking trails within the Belleayre Intensive Use Area. NYS DEC manages and blazes two entirely with the unit: Cathedral Glen, and Giggle Hollow. NYS DEC also



manages two trails that begin in the unit but depart it into the Big Indian Wilderness Area: Lost Clove Trail, and Pine Hill – West Branch Trail.

In addition, ORDA advertises 8 additional trails and hikes that utilize the Cross Country or Alpine Ski Trail systems.

There are also two Adirondack style three sided lean-tos within the unit, the Cathedral Lean-to near the summit at the top of the Cathedral Glen trail and the Belleayre Lean-to along the Giggle Hollow / Woodchuck Hollow Trail.



Existing Trail Descriptions, Assessments and Recommended Improvements

All the existing trails within the intensive use area are classified as multi-use trails where hiking as well as mountain biking are permitted. Although all the trails are suitable and currently sustainable at their current use levels for hikers, not all are currently well suited to mountain biking.



The **Ridge (Summit)** Trail follows the summit ridge from the top of the gondola, past sunset lodge all the way to the summit and former fire tower site. It needs better marking and a designated route along the ridgeline until it enters the woods just past the sunset lodge. A loop can be made along the summit ridge for easy family friendly riding with minimal grades and excellent views.

The Giggle Hollow Trail connects the Pine Hill West Branch Trail below the lean-to with the Belleayre Beach day use area and the Ulster – Delaware Railroad Grade. Parts of this trail utilizes excellent and sustainable roadbeds while other parts follow unsustainable fall line alignments.

As hiking trail, with minimal use it is in relatively good shape; as mountain bike trail it is too steep to be sustainable and is not currently ridden. There are several opportunities for more sustainable realignments as well as to create a short 3-to-5-mile loop by connecting with the proposed trails in the adjacent Shandaken Wild Forest to the east.

The Pine Hill West Branch Trail is a 26-mile trail extending from the West Branch of the Delaware through the Big Indian Wild Forest to the village of Pine Hill. It enters the Intensive Use Area near the summit and the old fire tower site. From here it descends off the east ridge of the mountain to the Belleayre Lean-to, passes the Lost Clove Trail, then the Giggle Hollow Trail before ending at Woodchuck Hollow Road. Woodchuck Hollow Road is a quiet dead end road the brings walkers down to the Ulster Delaware Railroad Grade and the village of Pine Hill. There is a small parking pull off at the end of Woodchuck Hollow.

For hikers and bikers alike parts of the trail are more difficult and parts of most difficult. There are several sections between Woodchuck Hollow and Giggle Hollow Trail intersection that should be rerouted to more sustainably accommodate mountain bikers at a more difficult level trail. There is one steep section above the lean-to that needs a relocation as well.

The Cathedral Glen Trail connects the summit ridge to the village of Pine Hill. From the Cathedral Glen leant-to this trail descends steeply in the woods at first over a roots and rocks trail tread, then emerges onto the steep double black diamond Cathedral Glen alpine ski trail. Where the ski trail departs to the west, the trail continues more moderately roughly paralleling the Cathedral Glen stream. It ends at the Glen Pond on the Ulster – Delaware Railroad and the bottom of the existing Nordic trails. The upper trail provides great views in a less developed setting than the other alpine ski trails.

The upper section of this trail is very steep and typical of a Catskill Mountain trail. It is only suitable for the most technically advanced riding and should not be encouraged as a mountain bike descent. The lower half is pleasant but could benefit from some minor adjustments to the alignment to take advantage of the stream corridor. The entire corridor is better served for mountain bikers through the development of a flowy mountain bike intermediate level trail slightly to the east of the existing trail. The existing alignment can remain for hiking only.

The Cross-Country Ski Trails provide moderately graded walking and easy mountain biking opportunities below the Discovery Lodge. Several of the ORDA advertised hikes utilize these trails. Minor realignments as well as several opportunities exist to improve the hiking and biking experiences as well as to create loops.

The Deer Run Trail utilizes the existing Deer Run alpine ski trail as a scenic and relatively direct means of climbing to the top of the mountain. For hikers, the trail provides excellent views along a gravelly



roadbed. For bikers it provides a steep challenging ascent and an unsustainable descent due to the prolonged steep grades and roughly textured tread surface. Parts of the lower trail are suitable for bikers in its current condition, although all portions of this trail could be enhanced with features to provide for a more destination worthy experience.

Roaring Brook Trail utilizes the existing Roaring Brook alpine ski trail to climb to the summit from Overlook Lodge. For hikers, the trail provides little shade but excellent views along a gravelly roadbed. For bikers it provides a steep challenging ascent and an unsustainable descent due to the prolonged steep grades and roughly textured tread surface.

The Porcupine Path ("J" XC Ski Trail) utilizes the Cross-Country ski trail that parallels the Discover alpine trail. This is a longer out and back hike opportunity utilizing a well-graded woods road.

Proposed New Hiking Trails

There are no new hiking only trails within the preserve aside from minor trail adjustments mentioned above. There are several new proposed shared use trails and are described in the Mountain Bike trails, below.

There are opportunities for Accessible Trails (designed and built according the 2013 Federal Accessible Trail Guidelines as published by the US Access Board) throughout the unit. The easiest and most logical area to create such as trail is around Pine Hill Lake. Secondarily, there are opportunities the create portions or of the Ridge Loop Trail as Accessible Trails. This would require providing an Accessible access to the gondola cars and/or vehicular access to the top of the ridge.

PART III – Mountain Bike Trails

Existing Mountain Bike Trails, Conditions and Recommendations

Aside from the existing shared use trails described above and the ski trails which are sometimes used for mountain biking. There are only two mountain bike trails within the unit, both of which un-official, not marked in the field, and are only useable by following routes designated by users on social media platforms.

Overlook Mountain Bikes All-Terrain Challenge Race Course – this follows the portions of the Eagle Alley hiking trail and XC ski trail "AA: below Discovery Lodge and winds across several of the lower alpine ski trails. The trail route shows up in Strava, and several other social media trail apps as a once popular ridge, in 2017 the trail route was visible and could be followed but by 2021 it was mostly obscured.

Discovery Way to Glen Pond Connector – this trail follows the western edge of the lower Cathedral Glen drainage between the Porcupine Path hiking trail (Nordic trail "J") and Glen Pond. It provides simple minimally developed but fun single-track descent to Glen Pond.



Proposed New Mountain Bike and Shared Use Trails

Following are trail descriptions for the proposed trail system as shown on the new map. While many of the proposed trails are downhill, optimally lift served experiences, there are others can be used as dual direction, shared use trails.

Downhill trails are optimized for riding from the top down. It is assumed that when the lifts are operating, riders will take the lifts up and ride down these trails - which are purpose designed for riding downhill. In most cases, where specified, a single direction is recommended when the lifts are open and uphill travel is not recommended. The most difficult "black" trails would be similar to traditional "downhill" experiences found at most lift serviced bike parks. They will not be straight down the mountain except for short segments. In general, the black trails will also traverse the slopes to encourage positive drainage. Rock gardens on the black trails might be a little more difficult to bypass and are more likely to be a place where armor is prudent. The green and blue trails will be more analogous to downhill flow trails than traditional downhill experiences.

The dual direction trails are more traditional cross-country trail riding experiences. Although they will tie into the lift served trails in numerous places, they can be used independent of the lifts whether or not the lifts are operating. These trails are concentrated on the eastern half of the unit and provide connections to the Shandaken Wild Forest and Ulster and Delaware Railroad Grade.

Cross country trails typically provide a varied experience with more pedaling required. On cross country trail, riders are less likely to get in over their heads in terms of challenge and terrain. The trail access, length, and designed features along the route can qualify riders so more challenging features are found the more remote the rider travels. All technical features on easiest and more difficult trails should have rollable options or bypassing alternate lines.

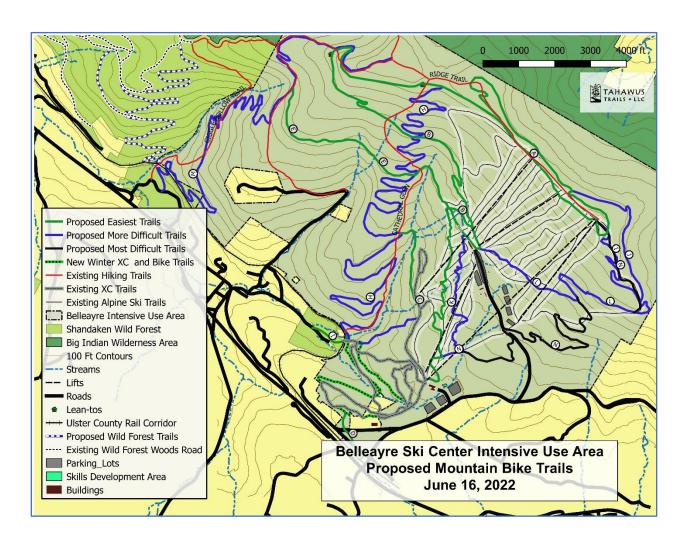
The overall character of the trails proposed will not deviate significantly from the character of recently constructed mountain bike and hiking trails in Wild Forests. The notable exceptions are slightly wider trail widths in places in order to accommodate a greater range of users that may be encountered as a result of the lift access service. The objective will be to create modern mountain bike trails that appropriately blend into the Belleayre Intensive Use Area. To that end, most of the trails will meet the same standards outlined in the NYS DEC / APA Guidance Document for development of mountain bike trails in Wild Forests with minor modifications that are appropriate for the more developed nature of the Intensive Use Area. The more distant any given trail is from the developed areas of the Intensive Use Area, the more naturalistic and "wild" in character they will be.

In addition to the existing and new trails, a skill development park and learning area (Skills Park) should be established near the Discovery Lodge, future rental facilities, and base of the gondola. This area allows for riders to get comfortable with rental bikes, take lessons, and practice progressively more challenging features in a safe environment. Skills parks typically include rollers, drop and jumps with safe landing zones, balance features, "rock garden" features, tabletops and berms. The most optimal location for the skills park at Belleayre is in front of the First Aid building. Alternatively, there is terrain available east of Discovery Lodge and the base of the ski lifts or between Discovery Lodge and the First Aid building.



Summary of Bike and Shared Use Trails by Difficult Level

Difficulty Level	MILES	
Easiest Trails (total)		15.6 miles
Easiest Trails (Downhill Optimized)	5.23 miles	
Easiest Trail (Cross Country and Dual Direction)	10.37 miles	
More Difficult Trails		14.02 miles
Most Difficult Trails		2.6 miles
TOTALS		32.22 miles





Descriptions

Easiest trails

- A. Ridge Loop- A 2.8-mile family friendly shared use trail loop can be created along the flat terrain along the summit ridge. This will create a unique experience for non-technical riding along the top of a Catskill Mountain with outstanding view throughout most of its length. In the winter, this can also serve as a Nordic ski trail when the snow is less than optimal at the base of the mountain. To best serve these users this should be a wider "double-track" experience with an 8-to 10-foot-wide tread width. It is ideal for a multi-use and multi-directional trail.
- B. Easiest Descent (Central Green) This trail descends from the Ridge Loop to the east, staying just below the summit's north side before switch backing through across Cathedral Glen and through the forest between Cathedral Glen and Roaring Brook. It continues a descent across Roaring Brook and Belleayre Run and then turns to the east traversing above the snow making pond near Overlook Lodge to join up with Ashokan near the Pump House. It descends along the lower edge of Ashokan, using the Alpine Trails existing culverts as for the drainage crossings over the downslope to shape a full bench tread with fun rollers. The lower end of the trail connects with Discovery Lodge by traversing through the forest between and turning along the edges of alpine trails Dakota and Discovery Way. In its entirety, this trail is a 5-mile descent, although the first 1.5 miles has very moderate- nearly flat grades thus providing an easier "warm up" for the continuous grades beyond. If constructed at 6-to-8-foot width, with alternate lines, it can be multi-directional and serve as a climbing route when the lift is not operating.
- C. Easy-Out This trail connects Cathedral Glen directly with Discovery lodge. It mostly follows the 2,100-foot contour providing an easy way to connect back with Discovery Lodge from the Cathedral Ridge trail without having to descend to Glen Pond and ascend back to Discovery Lodge. It also provides a leg of the independent loop down to Glen Pond. It would follow Nordic Trail "J" to return to Discovery Lodge. A bridge would be needed to cross the Cathedral Glen drainage and several intermittent tributaries. It can be multi-directional and multi-use.
- **D.** Route 28 Connector This short trail would provide a connection to the Route 28 trailhead at the Railroad Grade from the Cross-Country Ski Trail system. It can be multi-directional and multiuse.
- E. Shandaken Traverse This trail serves as the primary mid-mountain connection between the ski area and the Wild Forest trails. It begins at the Overlook Lodge area and uses the pump house road and the lower Cathedral Brook ski trail to cross over Cathedral Brook. At the bottom of the Cathedral Brook trail, it continues to traverse along the top of the Woodchuck Hollow drainage ultimately connecting with the Pine Hill West Branch Trail which it utilizes to connect with the Giggle Hollow Trail and the new trails in Shandaken Wild Forest. This trail is multi-directional and multi-use and can be used in multiple seasons as it would also provide a Nordic ski trail connection between the ski area and the Wild Forest Nordic ski trails.



- F. Nordic Ski Trail Re-alignments— Several of the Nordic Ski Trails can be re-aligned to create a more optimal multi-use experience and to enhance long term sustainability. Some of the realignments create loops out of the existing trails. They also create more moderately graded climbing trail to return to Discovery Lodge and the Maintenance area from the bottom of Cathedral Glen and the Village of Pine Hill. These trails can be multi-directional and multi-use.
- **G.** Pine Hill Connector This a new proposed trail that would connect Glen Pond with Bonnie View road and thus make a direct connection with the Village of Pine Hill. This trail is multi use and multi directional.

More Difficult Trails

- H. Cathedral Connecting the summit with Glen Pond and the village of Pine Hill, this trail has the potential to be a keystone trail for Belleayre mountain bike trail system. It can be aligned and built for optimal flow and minimal pedaling and breaking. The Upper half is a solid more difficult trail while the lower half can be easier or more difficult depending on how it is constructed. This trail is best designated as downhill only and single use. The hiking trail along the brook should remain and can serve pedestrian traffic.
- I. Deer Run Ridge Trail This uses the Upper Deer Run trail along the ridge west of the gondola. The Deer Run trail described in the advanced trail section also uses the same ridge, but this trail keeps its more difficult grade by traversing back and forth along the ridge and the alpine trail. This trail is optimized for downhill only.
- J. South Face This trail is the only trail that traverses along the south face of Belleayre. From the gondola it meanders down to the top of a ledge system where there are minor vistas to the south. It traverses the western ridge over several large rock features which will need wooden boardwalks with railings to traverse for about 100 linear feet. Although this trail is moderately graded at 5% or less it traverses some steeps slopes over and through rocky and ledgy terrains, which makes it's a more difficult trail rather than an easier trail. This trail can be multi-directional and multi-use with appropriate warning signage.
- **K.** Lower Central- This trail traverses the lower mountain alpine ski trail areas between the bottom of Winnisook and Lower Deer Run near its crossing of Crystal Brook. It is optimized as downhill only and has opportunities for jumps.
- L. Cayuga This trail connects the Deer Run ski trail and Cayuga ski trail with the Overlook Lodge area staying above Deer Run and is co-aligned in places with Expressway. Where it is co-aligned with ski trails, all features should be on the edge of the trail. This trail can be multi-directional and if designated as such would provide a mid-mountain ascent.
- M. Woodchuck Ridge (Pine Hill West Branch) This trail consists of the co-alignments and realignments of the Pine Hill West Branch Trail and the Giggle Hollow Trail from the summit to



Belleayre Beach. It also provides the western half of a loop option from Belleayre Beach; the eastern half is on Wild Forest lands. This trail can be multi-directional and multi-use.

More Difficult (Advanced) Trails

N. Deer Run This route is co-aligned with the Upper Deer Run trail from the top of the Gondola ten utilized terrain below the Deer Run Trail until it crosses on the new snow bridge. Existing terrain features as well as newly developed features can create more challenging jump options along relatively steeper alignments. This trail is an ideal alignment for a jump trail.

Ulster and Delaware Railroad

As its own unique trail type, the potential for shared use rail trail utilizing the Ulster and Delaware Railroad grade is integral to the Intensive Use trail system as well as broader connections. The 2.5 mile stretch between Belleayre Beach at Giggle Hollow and the parking at Highmount on Route 28 provides a connection to complete loops for all the lower trail termini within the Intensive Use Area and the new Shandaken Wild Forest trails to the east. If this is fully developed to the west into Delaware County and further east down the Route 28 corridor



Summary of Stream and Wet Area Crossings

To the greatest extent possible streams and drainages are crossed on existing Alpine Ski Trail infrastructure. However, 14 additional major stream crossings are needed to develop the trails as proposed. In addition to these there are several bridges on the existing Nordic ski trails that will eventually need replacement.

All stream crossings shall follow all NYS DEC guidance and shall avoid sedimentation of streams and fragmentation of stream ecosystems. In particular, all major stream crossings shall be clear span bridges with the crossing opening at least 1.25 times the stream width. Stream width shall be the average width (measured at 3 separate locations) as measured bank to bank at the ordinary high-water level.

No disturbance to the stream bed will occur, all disturbance will occur above the ordinary high water level. This includes for the construction of bridge abutments.

Minor drainages and seasonal streams (unclassified and un-mapped) are crossed either with stone paved armored crossings, or culverts. If culverts are to be used, they must be appropriately sized and placed to prevent scouring, erosion, clogging, ponding, and shall be imbedded so the substrate and bedding is similar to the surround natural drainage.

A summary of the major drainages is listed below and shown on the following map:

- 1. E. Easy Out Trail, Cathedral Brook - 30 foot bridge
- 2. E. Easy Out Trail, Tributary to Cathedral Brook 20-foot Bridge
- 3. E. Easy Out Trail, Tributary to Cathedral Brook 12-foot Bridge
- 4. E. Easy Out Trail, Tributary to Cathedral Brook 20-foot Bridge
- 5. **G. Shandaken Traverse** Woodchuck Hollow Drainage, 16-foot bridge
- 6. **G. Shandaken Traverse** Woodchuck Hollow Drainage, 12-foot bridge
- 7. **H. Nordic Ski Trails** Crystal Brook 20-foot bridge
- 8. K. Lower Central Tributary to Cathedral Brook 20 foot bridge



