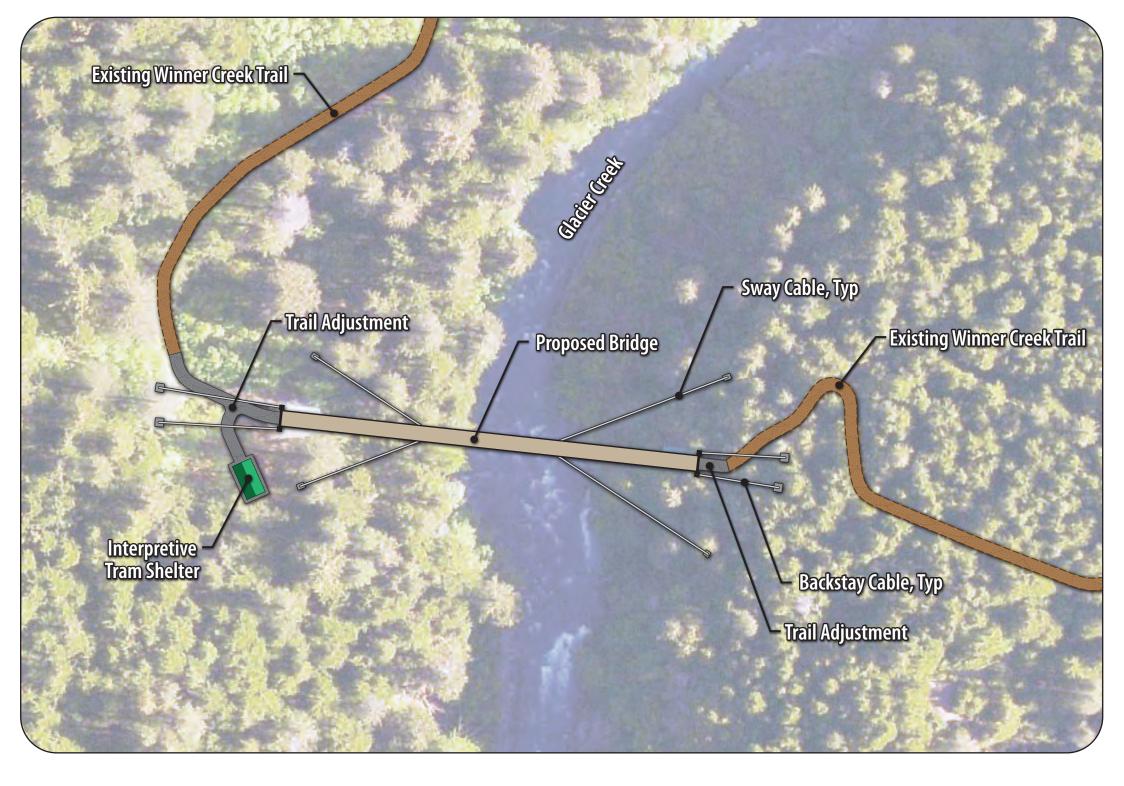
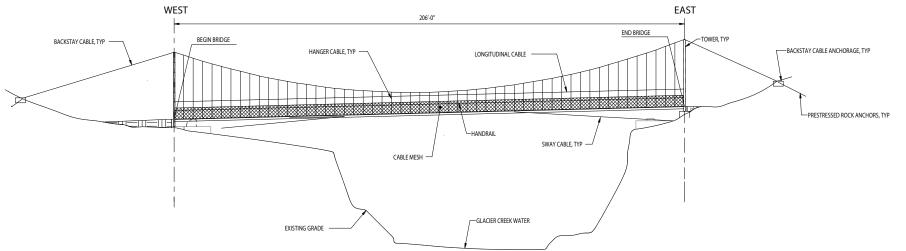


Example of proposed bridge



Example of proposed bridge





WINNER CREEK TRAIL BRIDGE AT GLACIER CREEK

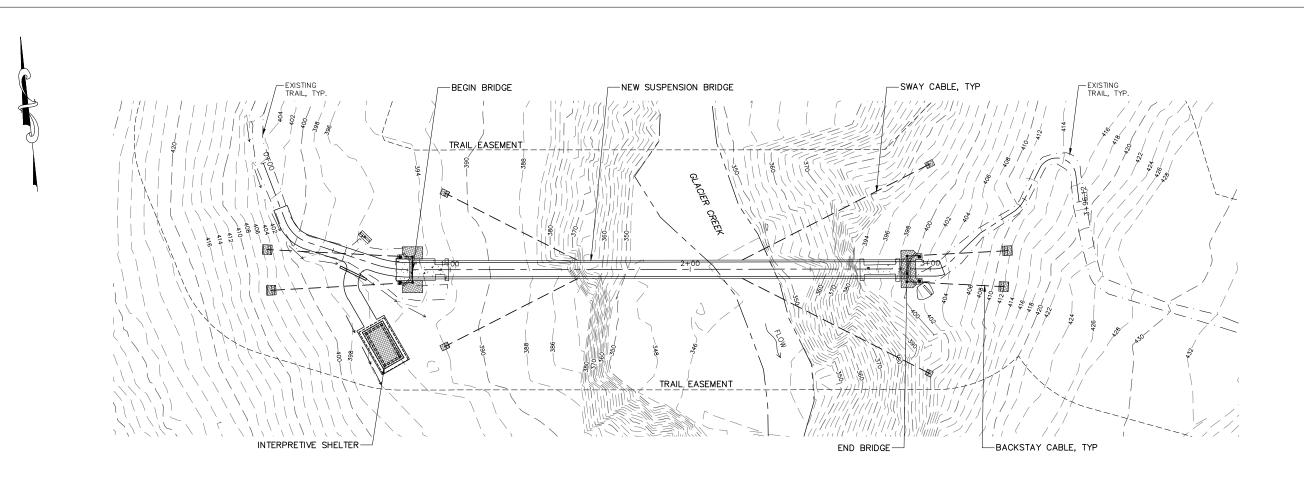
GIRDWOOD, ALASKA













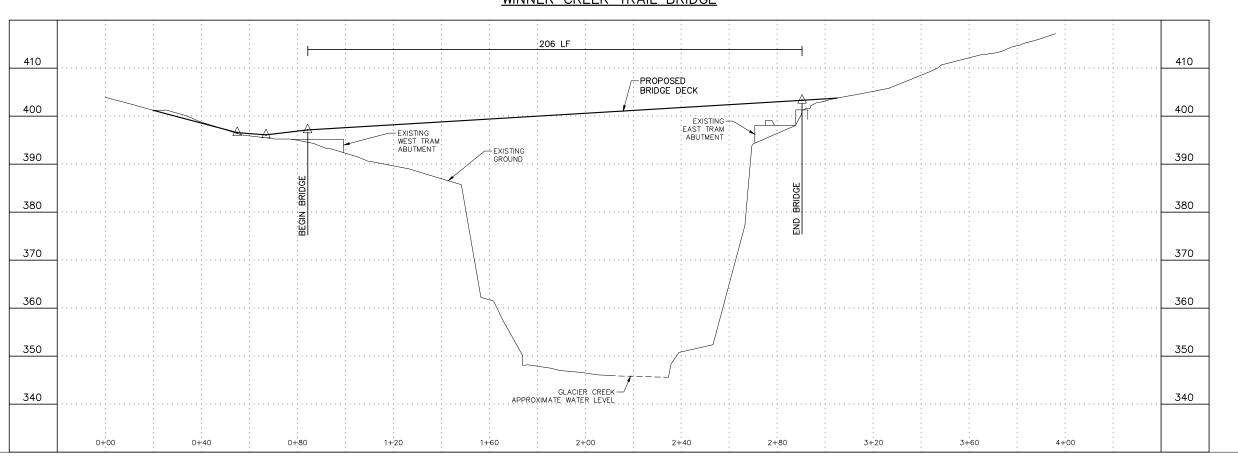


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WINNER CREEK TRAIL BRIDGE



WINNER CREEK TRAIL BRIDGE AT GLACIER CREEK GRDWOOD, AK

MUNICIPALITY OF ANCHORAGE



February 2025 Report Girdwood Trails Committee

Thank you! At last enough snow to have the 5K groomed again! Please any non-ski use of the 5K now that grooming has started. Meadows do not have enough snow to groom and are soft under the crust of ice that has just formed.

Updates and other business:

<u>Girdwood Valley Trails Management Plan</u>. Current version is posted on the GTC page. Barb Crews has initiated review of this document with the goal of updating it to match the Girdwood Trails Master Plan.

Girdwood Trails Master Plan. Adopted version is posted on the GTC page.

<u>Girdwood Comprehensive Plan.</u> Planning and Zoning hearing was July 15. Item has been introduced at the Assembly with hearing Dec 17; Assembly will likely continue hearing on Feb 25. More information available on Imagine!Girdwood website: <u>imaginegirdwood.org</u>

Repairs/Future Improvements: The trail bridge from Townsquare to Crow Creek Road has been leveled. Restricted donation received for work on this project. Plan is to rebuild the bridge in 2025 with private funding.

Suspension Bridge: Design continues with our contractors towards a complete design set. Goal is to bid the project for construction in 2025.

We will need to discuss a Capital fundraising plan with GTC for the Suspension bridge and Hand tram interpretive center. We'll be looking for volunteers to help organize a plan and pull off fundraising events over the fall/winter/spring to help raise additional funds for this project.

Financial report: \$73,102 held in Girdwood Inc Account (11/29/24).

Grants Status report:

<u>State of Alaska, Capital Budget</u>: Thank you to Alaska Trails for including the suspension bridge to replace the Hand Tram in their requests for funding of the State of Alaska. State has awarded \$1.2M for this project as part of Alaska Long Trail Funding. Construction goal is 2024/2025.

Rasmuson Tier II Grant: GVSA has been awarded funding for this project.

<u>Recreational Trails Program Grant (RTP):</u> GVSA submitted RTP grant application for work on Middle INHT Oct 31 2023. Delays with the funder pushed the grant project to 2025, staff is scheduling Alaska Trails Crew to do the work. No grant application submitted for 2025 cycle. Next opportunity will be 2026.

<u>Dugan Family donation</u> for trails signs on Middle Iditarod Trail and bench at the 5K parking are nearing completion. Remaining is the trail sign that will be produced and placed.

<u>Dugan Family donation</u> for reconstruction of 2 bridges on the Middle Iditarod Trail. We've started collecting materials to work on this project.

Trail Map Project: Summer map project complete, anticipate some small edits to clarify e-bike use. First winter map meeting was held Nov 25, pending discussion with contractor in early 2025. Contractor is out of state until early Feb.

Trails Commercial Use Permits: 2025 permits are being issued by Girdwood Parks and Recreation. Any business operating commercially on Girdwood public land and trails should have a permit issued locally. Contact for requesting permits is girdwoodpermits@anchorageak.gov 907-343-8373. Report operators without permits to Kyle Kelley: kyle.kelley@anchorageak.gov 907-343-8374.

More information available at: www.muni.org/gbos.

CHAPTER 1 Girdwood and Its Trails



History of the Community and Its Trails

Early History

The Upper Cook Inlet, Kenai Peninsula, Turnagain Arm region has been occupied for thousands of years. Dena'ina, Alutiiq and Chugachmiut people have moved through, lived in, and gathered together throughout this vast area. The Girdwood Valley, like other valleys in the region, served as a travel corridor for indigenous people and provided a variety of resources that supported and continues to support cultural practices and ways of life. Some of the trails in the valley likely originated as indigenous travel corridors.

When gold miners came to the Turnagain Arm area at the turn of the 20th century, the surrounding valleys were attractive for trying their luck. Girdwood, originally named Glacier City, was founded as a gold mining town when several claims were staked on the Crow Creek, Virgin Creek, and California Creek drainages. As the number of miners increased, Glacier City also became a supply camp on the route between Seward and Ship Creek, which is now Anchorage. Miners and other workers developed a supply trail, now famous as the Iditarod Trail, which went from the ice-free ports of Seward and Whittier, through Girdwood and over Crow Pass, to the gold mining districts of Western Alaska.

The development of Girdwood was further spurred with railroad construction by the federal government in 1915. The little town boomed with new businesses. Mining in the upper Crow Creek area continued until 1942, when mine closures by a presidential order made Girdwood a near ghost town. However, in 1949 Girdwood again flourished as construction began on the Seward Highway, connecting Seward to Anchorage. By 1954 Girdwood citizens were connected by road to Anchorage and the Kenai Peninsula.

Ski Town

Outdoor recreation activities became an important part of Girdwood life in 1956 when the Girdwood Community Club formed the nonprofit Alyeska Ski Corporation. A poma lift and day lodge facility were in use on Mt. Alyeska by 1959, and the first chair lift was installed in 1960. Skiing and tourism grew throughout the 1960's as skiers flocked to Girdwood to enjoy the town's abundant snowfall and winter recreation opportunities. In 1967 Alaska Airlines bought the Resort and then sold it to Seibu Corporation in 1980. Seibu invested heavily in Alyeska, installing new chair lifts, the aerial tramway, mountaintop restaurants, and 307-room Hotel Alyeska. John Bryne III purchased Alyeska Resort in 2006 and further improved the Resort, installing new ski lifts, downhill mountain biking trails, and a hiking trail up the North Face of Mt. Alyeska. Alyeska changed hands again in 2018, when Canadian hospitality company Pomeroy Lodging purchased the Resort. Pomeroy built the Alyeska Nordic Spa and has plans to expand the base area around the Hotel Alyeska with housing, conference center and recreation facilities.

Trails

Iditarod National Historic Trail

The Iditarod Trail was designated a National Historic Trail when the National Recreation Trails Act was amended in 1978 to include trails of national significance. The Iditarod Trail was one of four trails included with the passage of the Act. There are now 21 National Historic Trails. The well-known Iditarod sled dog race from Anchorage to Nome uses portions of the Iditarod National Historic Trail (INHT).

In Girdwood, both the Municipality of Anchorage and the US Forest Service manage parts of the INHT. The INHT in Girdwood was the object of a trail route study undertaken by the National Park Service in conjunction with the Girdwood Trails Committee. Trail locations, widths, and surfacing were laid out in the Girdwood-Iditarod Trail Route Study. The Study was adopted by the Anchorage Assembly on May 20, 1997, and it serves as the guiding vision for this trail in Girdwood. As Girdwood continues to grow, the need to establish a protected alignment of this trail has become more apparent.

Indian-to-Girdwood Multi-Use National Recreation Trail

The Indian to Girdwood Multi-Use National Recreation Trail, familiarly known as the Gird-to-Bird Trail, is Girdwood's second national trail. It is a paved, multi-use pathway that follows the old alignment of the Seward Highway from Girdwood to its neighboring communities of Bird and Indian. It is managed by Chugach State Park. Eventually the Gird-to-Bird Trail will connect to the INHT and the Alyeska Highway Bike Path.

Girdwood Hand Tram

The Girdwood Hand Tram allowed hikers on the Winner Creek Trail to cross Glacier Creek. The tram was located in the Four Corners area, where miners originally built a bridge to access the upper Girdwood valley. The tram was built entirely by volunteers donating countless hours of hard labor. From 1999-2001, they prepared the site, constructed the timber frame terminals, lined the cable across the creek and installed the tramcar. The Girdwood Hand Tram was financed through grants, donations, and contributions of time, labor and materials, including more than 60 helicopter trips. The Hand Tram became one of the biggest trail draws in the Girdwood Valley for visitors and locals alike, but had to be closed in 2019 due to a fatal accident. Girdwood Parks and Recreation and the US Forest Service are working on a plan to replace the Hand Tram with a suspension bridge. The Trails Committee retains a drawing of the Hand Tram in its logo.

Physical Features

(Section adapted from Girdwood Area Plan, 1995, Girdwood Trails Plan 2024, and Girddwood Comprehensive Plan 2025)

Geology and Topography

Girdwood Valley developed initially along a major structural trend in the bedrock that was later deepened and widened by glaciation. The valley generally runs along a northeast/southwest line and is relatively short in length--only six miles long. It is nearly two miles wide at tidewater and gradually narrows as it progresses inland to the headwall. The lower portions of the valley are broad and flat with abruptly ascending slopes along the mountainsides that rise to 3,500 feet. The upper valley narrows, with rolling terrain being wedged between the 6,000-foot peaks that make up the headwall. Topographic features throughout the valley consist of open meadows, cliff bands, prominent knolls, gullies, ridges, and glacial bowls.

The alignment of our trails and their condition are directly influenced by the geology and topography of the valley. For example, many areas of the valley are severe avalanche zones—places where winter travel should not be encouraged. Upper Winner Creek Trail, the lower section of Beaver Pond Trail, Crow Pass Trail, and Max's Mountain Trail are quite dangerous in the winter.



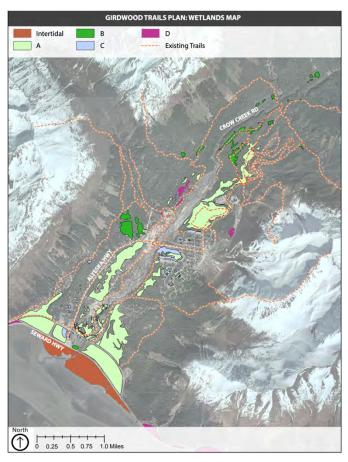
Hydrology

The major melt-water stream is Glacier Creek, which begins at the termini of several glaciers on Goat Mountain. From its head, the stream flows southwest to tidewater. In the upper valley, two other major melt-water streams flow into Glacier Creek in close proximity. Crow Creek flows in from the northwest, and just downstream, Winner Creek joins from the southeast. In this area of confluence, the streams flow through narrow, deeply cut bedrock. This important environmental feature is referred to as the "Four Corners" area. A large system of muskegs (bog-like wetlands) are located near the Hotel Alyeska, stretching northeast towards the Four Corners area. The Moose Meadow stream drains from this "sponge" into Glacier Creek.

Further downstream, a couple of other significant melt-water creeks flow into Glacier Creek. Alyeska Creek flows from the ski resort to the east and joins Glacier Creek just north of the airport, and California Creek originates on the western side of the valley and flows generally southwest parallel to Glacier Creek through the area east of the Alyeska Highway bridge over Glacier Creek, down to where it joins Glacier Creek near the Alaska Railroad right-of-way. These two creeks form an extensive flood plain with beaver dams and other wet-lands along California Creek. One other significant melt-water creek in the valley is Virgin Creek. It flows out of the lower eastern side of the valley, runs generally south, and empties into tidewater just south of Glacier Creek. Wetlands surround the lower portion of this creek.

These numerous creeks and wetlands make trail building in the Valley both expensive and environmentally challenging. Bridges, culverts, and boardwalks are needed to safely cross streams and to protect the wetlands. These kinds of infrastructure can add significantly to the cost of building and maintaining trails.





The numerous streams and wetlands are important fish spawning and rearing areas. All five species of salmon, steelhead, and Dolly Varden have been observed in Girdwood Valley waters. To protect the Valley's fish resources, trails need to be located far enough from streams so that trail erosion does not add sediment to the stream, which can destroy fish habitat. Any culverts should be sized and placed to allow for fish passage.

Soils

According to the U.S. Geological Survey, Girdwood was heavily glaciated during the Pleistocene period. At one time ice was nearly 3,500 feet thick in the valley. As the ice melted, it deposited unconsolidated materials on the valley floor. Deposits range in thickness from 98 feet near Glacier Creek to two feet or less up the slope from the base area of the resort. The commonly found deposits of unconsolidated material that form the basic soil units are alluvial, colluvial, glaciomarine, and estuarine deposits.

Alluvial deposits are chiefly composed of sand and gravel with some layering of silt. They are found primarily on the lower terraces and floodplains of Glacier Creek and the outwash fans of Alyeska Creek, California Creek and Virgin Creek. Alluvial soils are well drained. Colluvial deposits are accumulations of mixed materials that are thickest along the bottom portions of the mountain slopes along the sides of the valley. Colluvial materials are mixed with a wide range of grain sizes. Drainage is fair to poor. Some colluvial areas along the base of Penguin Ridge contain numerous seeps. Glaciomarine and Estuarine deposits are poorly drained; fine grain silt and clay materials are found on some of the upland ridges, in natural depressions, and in the lower flat portion of the valley that is close to tidewater. Many are overlain with a mat of peat or muskeg and closely correspond to wetland areas.

The soils of Girdwood Valley make trail building both difficult and expensive. Materials that make up the glaciomarine and estuarine soil units have a high water-holding capacity and are poor areas to align trails as integrated water management is very challenging because of the flat topography. Trail alignments need to avoid these areas whenever possible.

Vegetation

Girdwood Valley is located at the northern edge of the Pacific coastal rainforest zone. The forest growth in the valley consists of western hemlock, Sitka spruce, and black cottonwood. These trees are typical for parts of coastal forests at this latitude and topographical conditions. The forest extends up the mountainsides to about 1500 feet. Shrub and scrub growth continues to a slightly higher elevation but is soon replaced by alpine tundra ground cover. The dominant shrubs and scrubs are alder, willow and devil's club.

When building trails in the coastal rainforest, it is important to design the trail so that any old growth timber is protected and to prevent blowdowns caused by trees left exposed to more wind than their roots systems can support. Another consideration for trails in a coastal rainforest is that plant growth is lush and rapid. Trails need to be brushed on a consistent basis to keep the trails navigable and to limit trail user's exposure to cow parsnip, which can cause skin rashes and blistering.

Climate

Temperature and Precipitation

Girdwood Valley has a maritime climate characterized by cool summers, relatively mild winters and year-round precipitation. This is typical of southern coastal areas of Alaska where the ocean exerts a moderating influence.

Winter weather in Girdwood is typified by periods of cold, stable weather followed by long periods of warmth. January and February are normally the coldest months. Average winter temperatures in the valley typically range from 15 to 25 degrees. The radically variable weather patterns that affect Girdwood during the winter are replaced by a more stable climate regime during the spring and summer months. Typical summer temperatures are in the 60's, with July being the warmest month.

Girdwood's average annual precipitation is 67 inches. Historically, precipitation in Girdwood has occurred on average 15 days each month for May, June and July. However, total accumulations per month through this period are relatively modest, averaging two to four inches. The average number of precipitation days and total monthly accumulations gradually increase beginning in August, reaching an average of 21 precipitation days and total water accumulation of eight inches for the month of October.

Impacts of Climate Change on Girdwood Trails

Yearly average temperatures in the Anchorage area have increased by over 3°F since 1949 with the bulk of the change seen during winter when temperatures have increased by almost 6°F. These winter temperature increases are particularly noteworthy as small fluctuations above and below freezing have a major impact on the type of precipitation and snowpack condition.

A US Forest Service technical report (2017) addressed the impact of climate change on the Chugach Mountains and Kenai Peninsula. It produced a set of climate projections specific to the Chugach and Kenai region. These projections lead to several likely climate changes to the region:

- Overall warmer temperatures, with earlier spring and later autumn, therefore a longer growing season:
- Shorter, less severe winters;
- Slight increase in annual precipitation;
- Increased rainfall and less snowfall at elevations below 1000m, with likely increased snowfall at elevations above 1500m.

For the Girdwood Valley, this means less snowfall in the southern end of the valley, even at Alyeska Resort. However, the northern, upper reaches of the valley, which feed the headwaters of Glacier Creek and Crow Creek, will likely see an increase in winter snowfall.

As the expected snowline increases in elevation, feasibility of lowland winter activities, such as Nordic skiing, will become marginal in coming years. Access to backcountry skiing from existing trailheads will also become more challenging.

The increase in annual rainfall and the likely additional rainy season during autumn will have consequences for erosion protection of many of the valley's trails. Attention will be needed to improve drainage in some areas and to manage trails popular with mountain bikers to prevent extensive rutting during wet seasons.

Due to the probable changes in winter snowpack, stream flows are likely to change across the valley with slightly increased volume everywhere and larger late spring flows in streams originating in the upper valley.

Finally, the anticipated increase of the growing season will necessitate more focus on brushing of trails and, combined with milder winters, may also allow a wider variety of invasive species to establish themselves.