

2019 Alaska Federal Lands Access Program

Proposal ID #: **AK-FY19-**
(For WFL Use Only)

(To be completed jointly by both the Federal Agency and State/Local Agency/Tribal Government)

| | | | | |
|---|---|-----------------------------------|------------------------------------|--|
| Project Name | Harbor Mountain/Gavan Hill Trail Reroute | | | |
| Route Name/Number | Harbor Mountain/Gavan Hill Trail, 31499 | | | |
| Federal Land(s) Accessed (Show on Map) | USDA Forest Service, Tongass National Forest | | | |
| Agency (ies) with Title to Road, Bridge, Trail or Transit System | USDA Forest Service, Tongass National Forest, Alaska Mental Health Trust | | | |
| Agency (ies) with Title to Enhancement Facility | USDA Forest Service, Tongass National Forest, Alaska Mental Health Trust | | | |
| Agency (ies) with Maintenance Responsibility for Road, Bridge, Trail or Transit System | USDA Forest Service, Tongass National Forest | | | |
| Agency (ies) with Maintenance Responsibility for Enhancement Facility | USDA Forest Service, Tongass National Forest | | | |
| Type of Proposal | <input checked="" type="checkbox"/> Capital Improvements <input checked="" type="checkbox"/> Transit <input type="checkbox"/> Safety Only <input checked="" type="checkbox"/> Enhancement <input type="checkbox"/> Planning <input type="checkbox"/> Research | | | |
| Key Items of Work (check all that apply) | <input type="checkbox"/> Paving <input checked="" type="checkbox"/> Earthwork <input type="checkbox"/> Major Concrete Structures <input checked="" type="checkbox"/> Bridges <input type="checkbox"/> Major Culverts <input checked="" type="checkbox"/> Road Base or Surface Course <input type="checkbox"/> Roadside Safety Structures <input type="checkbox"/> Planning Study <input checked="" type="checkbox"/> Bicycle/Pedestrian Facilities <input checked="" type="checkbox"/> Safety Enhancements <input checked="" type="checkbox"/> Transit Facilities or Operations <input checked="" type="checkbox"/> Ancillary Parking Areas, Pullouts/Interpretive Sites <input type="checkbox"/> Major Drainage Improvements <input type="checkbox"/> Other (specify) _____ | | | |
| Proposed Work Summary | <p>Phase I of the project will include Survey and Design according to design elements including contract preparation.</p> <p>Phase II Work will include new construction of 2.1 miles of the Gavan Hill segment of the trail and demolition of the old section. Over all grade will be reduced to an average of 16% with an elevation gain of 1,780 ft. The reroute will require excavation to produce a 3' wide trailbed, addition of aggregate, drainage structures including, rock fords and timber bridges with a maximum length of 40 ft. There will be bedrock removal for 600'. Precast concrete steps will be used on sections of the trail under 50% grade and aluminum staircase on trail grades greater than 50%. Three rest areas will be strategically located along the reroute to provide viewpoints and benches. A small trailhead will be built at the intersection with the Sitka Cross Trail to include a small facility to lock bicycles. All construction work will be contracted.</p> | | | |
| Primary Visitor Destinations (Show on Map) | Harbor Mountain Recreation Area and Gavan and Harbor Mountain ridge system. | | | |
| High Use Federal Recreation Sites and/or Federal Economic Generators (Show on Map) | The Alpine Adventure Run is an annual event that occurs on the trail and brings people from all over the country to participate. Sitka's excellent trail system comprised of federal, state, and local facilities is one of the area's draws to independent travelers and the tourism industry in general. | | | |
| Project Termini (Location) | Mile Posts | Latitude (Decimal Degrees) | Longitude (Decimal Degrees) | |
| | Begin | 0.00 | | |
| | End | 2.10 | | |
| | Nearest Town | Sitka, Alaska | | |
| Estimated Total Project Costs | \$1,448,955.00 | | | |

| | | | | | | | |
|---|---|---|-----------------------|-------------------------|-----------------------|----------------------------|--|
| Funds Requested from Federal Lands Access Program - \$2.5 Million Limit | | \$1,318,114.00 | | | | | |
| Project Length (miles) | | 2.1 | | Borough | | Sitka | |
| Required Local Match (9.03%) | | \$130,841.00 | | From | | USDA Forest Service | |
| Other Funding Contributions to Project | | | | From | | | |
| Acres of Federal Land Accessed by the Project | | | | | | | |
| The majority of the trail is situated on federal land and after a land exchange is completed with Alaska Mental Health Land Trust in 2020, the | | | | | | | |
| Functional Classification of the Roadway or Trail (Show official designations of route) | | <input type="checkbox"/> National Highway System <input type="checkbox"/> Major Collector Road <input type="checkbox"/> Local Road <input type="checkbox"/> Arterial Road <input type="checkbox"/> Minor Collector Road <input checked="" type="checkbox"/> Trail | | | | | |
| Traffic Volumes | | Current Actual Counts Estimated | | | | 20 Year Projections | |
| | | Start of Project | End of Project | Start of Project | End of Project | Start of Project | End of Project |
| Average Daily Traffic (ADT) on Highway | | | | 32 | 20 | 48 | 30 |
| Seasonal Average Daily Traffic (peak season) (SADT) on Highway | | | | | | | |
| % Trucks | | | | | | | |
| % Federal Land Related | | | | 100 | 100 | 100 | 100 |
| Comments | | Estimated counts are based on trail counter data from 2015/2016. Counter was installed near start of project area, but not at end. Some unknown percentage of hikers turn around before reaching the end of the project area. A 50% increase in traffic over 20 years would be realistic as the grade of the re-routed trail would make the route more accessible to hikers of varying abilities. | | | | | |
| National Bridge Inventory (NBI) Structure Number | | Dimensions (Overall Length x Width) | | Bridge Type | | No. of Spans | NBIS Sufficiency Rating (1-100) |
| + | - | | | | | | |
| Problem Statement: What purpose does this transportation facility serve? What is the need for this project? Who will this project serve (such as skiers, communities, hikers...)? What are the conditions requiring relief? Describe the consequences if these conditions are not addressed. Describe physical and functional deficiencies, anticipated changes in use, safety problems, capacity issues, bridge deficiencies, pavement or surface conditions, etc. | | | | | | | |
| The 5.5 mile-long Harbor Mountain/Gavan Hill Trail is one of the most popular trails accessible from the Sitka road system. The trail connects the Cross Trail Multimodal Pathway accessible from downtown Sitka and ends at Harbor Mountain road, the only road in southeast Alaska that accesses the sub-alpine. This easy access to the upper elevations draws many hikers who might not otherwise want to climb from sea level to the ridge top at Gavan Hill. The trail is used year round by hikers, hunters, snowshoers and skiers. For the past 25 years, the Alpine Adventure Run mountain race has been run on the Harbor Mountain/Gavan Hill Trail bringing competitors from all over Alaska and increasingly from the lower 48. The race has grown in popularity from 15 runners in 1993 to 85 participants in 2018. The Forest Service has capped the number of participants at 85 due to concern about the condition of the Gavan Hill Trail and there is always a waiting list. The segment of trail not included in this proposal has been reconstructed in phases over the past 20 years. One critical portion remains to be completed - the Gavan Hill portion that leads from the Sitka Cross Trail to the ridge top. This project will replace the unsafe, decaying boardwalk and eroded natural tread with durable, low maintenance gravel. The Gavan Hill segment of the Harbor Mountain/Gavan Hill Trail was constructed in 1993, mostly from pressure-treated wood which is now reaching the end of its 30 year design life. The elevated staircases and boardwalks are literally falling apart and the natural tread portions are severely eroded, creating significant public safety hazards. Sitka Search and Rescue has logged five litter rescues of hikers injured on the trail; the incidence of which can be expected to increase in number and severity as the structures become more decayed. Maintenance needs have become extreme because the steps are constantly breaking and it is not always possible to quickly repair hazardous conditions. | | | | | | | |

Detailed Description of Proposed Capital Improvement, Enhancement, or Surface Preservation: Describe how the proposed project will address the problem. Describe the overall design concept, scope of work, any unusual design elements, design or operational standards, and any work affecting structures (bridges and major culverts). Include widths, surfacing type, surfacing depth, earthwork needs, roadside safety features, ancillary parking areas, signing improvements, bridge work, guardrail improvements, etc. Include optimum year work should be done and year work needs to be done no later than.

The Scope of Work is to complete the project in a minimum of two phases. Phase I, year 1 of the project is projected to start in 2021 and will include Survey and Design according to design criteria and elements including contract preparation. Phase II, year 2 work would start in 2022 and includes construction of the 2.1 mile reroute of the Gavan Hill segment of the trail and demolition of the old section. Though completion of the project in two phases over two years would be ideal, the construction could be split into multiple phases if necessary. There is no date the project needs to be completed by, but as mentioned previously, there are definite safety concerns with the existing trail so completion by the end of 2022 would be ideal.

Overall grade will be reduced from an average of 29% to 16% with an elevation gain of 1,780 ft. The reroute will require cut and fill to produce a 30" wide tread, addition of 3" minus aggregate an average of 8" deep for about 9540' of trailbed, drainage structures including 3 rock fords, and 23 36"-48" wide timber bridges with an average length of 20 ft and maximum length of 40 ft. There will be approximately 600' of bedrock removal. Steps and staircases will be kept to a minimum and may be constructed from imported or native stone, pre-cast concrete or aluminum. Three rest areas will be strategically located along the reroute to provide viewpoints and benches. A small trailhead will be built at the intersection with the Sitka Cross Trail to include a small facility to lock bicycles.

The design criteria include:

- Provide an average grade of approximately 10–20% to minimize the need for steps and stairs
- Avoid major topographic obstacles and other negative control points
- Minimize switchbacks
- Maximize the beauty of the trail by routing it by points of interest like large old growth trees

Detailed Description of Proposed Transit Service: Provide operational details of the proposed service. What are specific destinations the route will serve? Is the service year-round or seasonal? What are the operating dates/service hours/day of week? Describe transit route details, including miles, number of stops, and variability in service operations. Describe any marketing, way finding, or other information that will be disseminated to promote service.

The Harbor Mountain/Gavan Hill Trail is a destination in and of itself. Community members as well as visitors to Sitka enjoy this route as the longest subalpine trail accessible from the Sitka road system. It directly connects the community via the Sitka Cross Trail to the top of Gavan Hill for a ridge hike ending at Harbor Mountain road (FS road 7576). The trail is most heavily used in the summer season, but sees steady use throughout the entire year.

The proposed reroute will have 3 rest areas over 2.1 miles and 1780 feet of elevation gain. A map on an aerial photo base will be installed at the trailhead/Sitka Cross Trail junction. The proposed trail reroute will lengthen the overall trail by nearly 3/4 mile from 5.5 to 6.2 miles. Several trail destination signs will be placed at various locations along the 6.2 mile trail to orient hikers to key trail features with updated mileages.

Upon completion of the project, the FS will update printed trail maps and websites to show the new trail alignment. Local non-profit and partner organization Sitka Trail Works, Inc. (STW) does an excellent job of promoting Sitka area trails. They maintain their own website with current trail information and maps. In addition, they lead free hikes during the summer to promote use and enjoyment of Sitka area trails, including Harbor Mountain/Gavan Hill. Alpine Adventure Run event organizer Christine Horan is one of the projects staunchest proponents and continuously works to promote the trail, which has become very well known in the mountain running community.

Detailed Description of Proposed Planning: Describe the details of this planning and the final product that will be developed. Would this planning effort support projects that could be submitted under future Federal Lands Access Program requests for proposals?

Much of the information included in this proposal was developed by a landscape architecture firm. They generated a detailed LIDAR-based slope and contour map that shows the areas of steep terrain to be avoided, and more gentle terrain that could be suitable for trail construction. A proposed route was ground-truthed and a conceptual design, including cost estimate, was completed. Depending on how funds are distributed, this project could be phased into 2 or more phases beginning in 2021. NEPA is expected to be completed by March 2020.

Detailed Description of Proposed Research: Describe the type of research and the final product for this effort. Describe the need for the research and how this research enhances safety, access or sustainability.

Much of the research for this project has already been completed as stated in the previous question. The purpose of the LIDAR mapping exercise was to locate a route with a reduced grade that would minimize the need for structures. The proposed route will be a huge improvement in terms of sustainability and safety.

Right-of-Way Acquisition: Describe which agency (agencies) has title for the project and how that title is documented. Describe which agency (agencies) has maintenance responsibilities for the project. Does new ROW need to be acquired? If so, how much, how many owners, and what is the anticipated time (months) to acquire all needed ROW? How does the applicant plan to acquire the ROW? Will coordination with any railroads be needed? What is your agency's experience acquiring ROW for federally-funded or assisted projects? Include supporting documentations which clearly shows which agency has title or maintenance responsibility of the facilities.

One section of this reroute (about 1800') is currently on Alaska Mental Health Trust lands, however these lands are in the process of being conveyed to the Federal Government to become part of the Tongass National Forest. An agreement is in place to complete the conveyance by March 2020 at the latest. The remaining route is on National Forest System lands. The rerouted trail, like the existing trail, will be the maintenance responsibility of the Sitka Ranger District.

Utilities: Identify utilities in the roadway corridor or project site. Would relocation be needed? What agreements exist and who pays for relocation costs?

No utilities are located in the project area.

Project is identified within the following (Check all that apply and show plan name)

| | |
|--|--|
| <input type="checkbox"/> System Transportation Plan (Unit, Refuge, etc.) | |
| <input checked="" type="checkbox"/> Federal Land Management Plan | 2016 Tongass Forest Plan amendment |
| <input checked="" type="checkbox"/> Regional/Borough Transportation Plan | 2003 Sitka Trail Plan |
| <input checked="" type="checkbox"/> City Transportation System Plan | 2012 Sitka Sustainable Outdoor Recreation Plan |
| <input type="checkbox"/> Tribal Transportation Plan | |
| Would the proposal require modification or amendments to any of these plans? | No |

Which of the following environmental and social issues are within the project area?

| | Yes | No | Unknown | Comments |
|---------------------------------------|--------------------------|-------------------------------------|-------------------------------------|--|
| Wetlands | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | NEPA analysis has been initiated and will be complete in 2020. |
| Threatened & Endangered Species | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | NEPA analysis has been initiated and will be complete in 2020. |
| Other Fish & Wildlife Habitat | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | NEPA analysis has been initiated and will be complete in 2020. |
| Wildlife Movement Corridors | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | NEPA analysis has been initiated and will be complete in 2020. |
| Wild & Scenic River | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Non-Attainment Air Quality Areas | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Cultural/Archeological/Historic Sites | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | NEPA analysis has been initiated and will be complete in 2020. |
| Public Parks | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Wildlife Refuge | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Hazardous Materials | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Stream Encroachments | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |

| |
|---|
| <p>Describe any other environmental or social issues that should be considered that are within the project area: Is the route included in an area receiving special management considerations for water quality, wildlife security, connectivity?</p> <p>The route is within a municipal watershed for the City of Sitka. The 5.5 mile Indian River Trail is also located within the watershed. Consultation with the Alaska Department of Environmental Conservation will be completed.</p> |
| <p>Describe the range of attitudes, both support and opposition, that this proposed project may receive from organizations, the public and within your own agency: State the basis for this supposition and include coordination efforts and public involvement efforts completed to date.</p> <p>The community of Sitka has long recognized the need to reconstruct this last phase of the Harbor Mountain/Gavan Hill Trail. In order to decrease the grade of the trail and reduce the number of treated wood structures, a reroute to a new location is necessary. Public comment has been positive for work that was completed on the remaining sections of the 5.5 mile trail. Public scoping will occur during the NEPA process including communication with the Sitka Tribe of Alaska and Shee Atika Corporation to determine if there are any concerns about the project. Plenty of support with little opposition is expected based on recent trail construction/reconstruction projects.</p> <p>The preferred lead agency for project delivery is WFLHD: The project proponents may suggest another agency take the lead for project delivery. If recommending a different agency deliver, indicate below which agency and provide rationale for recommendation. The rationale should include why another agency should take the lead, previous experience in delivering Federal-Aid (Title 23) funded projects, and ability to satisfy Federal Highway Administration project delivery requirements. The final capability assessment for project delivery will be completed by the WFLHD.</p> <p>Recommend that the USDA Forest Service be the lead agency for project delivery due to the nature of this project. Backcountry trail design and construction is highly specialized and the Forest Service has a successful history of implementing this kind of projects on time and within the budget. Examples are the 2017 the Sunnahae Trail FLAP near Craig, Alaska and the 2019 Raven Trail Reconstruction FLAP project near Petersburg. There is an experienced team of trail designers and contract administrators stationed in Sitka who would be responsible for implementing this project, resulting in substantial cost savings for pre-construction and construction engineering, which is reflected in the attached cost estimate.</p> <p>**Transit Supplemental Questions: <i>For Transit Proposals only</i>, please answer the following: If transit service is currently being provided to this Federal Land Management Agency unit or service has been provided in the past, please provide details about service parameters, ridership, cost per passenger, and any other pertinent information. What revenue will be collected to support the service? Describe fare pricing, discounts, pass programs, etc. Provide number, type, and age of current fleet. What is the daily number of riders estimated currently and/or at project completion? Describe how the proposed transit service will be financially sustainable with current and future sources of funding.</p> |
| <p>**Research Supplemental Questions: <i>For Research Proposals only</i>, please answer the following: Please provide details on how this research is broad-based and not narrowly focused on a localized problem. Provide specific examples showing how this research product can be used across multiple agencies.</p> |

Cost Estimate for Capital Improvement and Enhancement

Fill-in estimates for appropriate items. Add items as needed. **Use Current Unit Prices.**

Source of **Accurate** Price Information: **Recent FS projects including Sunnahae trail in Craig and Raven trail in Petersburg**

| Quantity | Item | Unit Price | Unit | Total |
|---|--|------------|--------------|----------------|
| | Clearing and Grubbing | | Acres | |
| | Roadway Excavation | | Cubic Yards | |
| | Imported Borrow | | Cubic Yards | |
| | Sub-Excavation | | Cubic Yards | |
| | Water / Dust Abatement | | Gallons | |
| | Recycled Asphalt (milling, pulverizing, ripping) | | Square Yards | |
| | Asphalt concrete pavement | | Tons | |
| | Aggregate Base (may include stabilization) | | Cubic Yards | |
| | Aggregate Sub-Base | | Cubic Yards | |
| | Major Culverts | | Each | |
| | Minor Culverts | | Each | |
| | Retaining Walls | | Square Feet | |
| | Rip Rap & Slope Protection | | Cubic Yards | |
| | Revegetation | | Acres | |
| | Signing | | Square Feet | |
| | Pavement Marking | | Linear Feet | |
| | Roadside Safety (barriers, guardrail) | | Linear Feet | |
| | Bridges | | Lump Sum | |
| | Traffic Control | | Lump Sum | |
| | Utility Relocation | | Lump Sum | |
| | Enhancement | | Lump Sum | |
| | Enhancement | | Lump Sum | |
| Use table on the next page for additional items. | | | | |
| Sub-Total | | | | \$1,150,055.00 |
| | Mobilization (As percentage of Sub-Total) Typically 10%, input estimated percentage in decimal form. For example: 0.10 | 0.035 | Lump Sum | \$40,251.93 |
| | Contingencies(As percentage of Sub-Total) Costs to cover undefined items. Typically 30%, input estimated percentage in decimal form. For example: 0.30 | 0.075 | Lump Sum | \$86,254.13 |
| Total Estimated Construction Cost | | | | \$1,276,561.05 |
| Estimated Preliminary Engineering Costs (As a percentage of the Total Estimated Construction Cost) Typically 5 to 25 percent, depending upon project scope and complexity. Input estimated percentage in decimal form. For example: 0.15 | | | | 0.05 |
| Estimated Right of Way Costs | | | | \$0.00 |
| Total Estimated Preliminary Engineering Costs | | | | \$63,828.05 |
| Estimated Construction Engineering Costs (As a percentage of the Total Estimated Construction Cost) Typically 5 to 20 percent, depending upon project scope and complexity. Input estimated percentage in decimal form. For example: 0.10 | | | | 0.04 |
| Estimated Construction Engineering Costs | | | | \$51,062.44 |
| | Construction Modifications (CM) Cost to cover changes during construction, typically 10% of construction cost. Input in decimal form. For example: 0.10 | 0.05 | Lump Sum | \$57,502.75 |
| Total Project Costs | | | | \$1,448,954.29 |

Cost Estimate for Capital Improvement and Enhancement (Cont.)

Add items as needed. Use Current Unit Prices.

| | | Quantity | Item | Unit Price | Unit | Total |
|---|---|----------|--|------------|------|------------------|
| + | - | 2,200 | Demo of existing trail structures | \$12.00 | LF | \$26,400.00 |
| + | - | 9,864 | Aggregate Trail - 30" wide x 8" deep | \$70.00 | LF | \$690,480.00 |
| + | - | 115 | Stream Ford | \$25.00 | LF | \$2,875.00 |
| + | - | 30 | Drainage Dips | \$100.00 | EA | \$3,000.00 |
| + | - | 454 | Timber bridge with handrails | \$400.00 | LF | \$181,600.00 |
| + | - | 300 | Precast concrete steps | \$300.00 | EA | \$90,000.00 |
| + | - | 60 | Aluminum Staircase | \$675.00 | LF | \$40,500.00 |
| + | - | 600 | Solid rock removal - full bench (includes aggregate trail) | \$120.00 | LF | \$72,000.00 |
| + | - | 6 | Rest areas with benches | \$6,000.00 | EA | \$36,000.00 |
| + | - | 2 | Standard Tongass NF trailhead marker | \$1,000.00 | EA | \$2,000.00 |
| + | - | 1 | Trailhead map | \$2,000.00 | EA | \$2,000.00 |
| + | - | 8 | Trail marker sign | \$400.00 | EA | \$3,200.00 |
| | | | | | | Sub-Total |
| | | | | | | \$1,150,055.00 |

Comments:

Cost data is from 20 years of historical bid data for same trail construction types and from field and GPS measurements.

Cost Estimate for Transit Projects

Add items as needed. Use Current Unit Prices.

| | | Quantity | Item | Unit Price | Unit | Total |
|---|---|----------|------|------------|------|----------------------------|
| + | - | | | | | |
| | | | | | | Total Project Costs |

Comments:

Cost Estimate for Planning and Research Projects

Add items as needed. Use Current Unit Prices.

| | | Quantity | Item | Unit Price | Unit | Total |
|---|---|----------|------|------------|------|----------------------------|
| + | - | | | | | |
| | | | | | | Total Project Costs |

Comments:

Required Local Contribution to Project: Describe the type and source of funds to provide the required 9.03% local match. Describe any soft match, in-kind match, or eligible Federal funds that will be used to satisfy the match requirement.

Local cash match will be \$130,841.00 from Tongass National Forest allocated funds for trail construction, maintenance, planning, and administration.

Other Contributions to the Project: Describe any additional contributions secured or being sought to implement the project proposal. Does this opportunity possibly leverage other funds?

Opportunities to leverage FS matching funds to secure additional project funding from the National Forest Foundation will be explored.

How does the project relate to the following evaluation criteria?

1. SAFETY

Improvement of the Transportation Network for the safety of its users.

- How would the proposed project improve unsafe conditions such as crash sites, inadequate sight distance, roadside hazards, poor vertical/horizontal alignment, hazardous intersections, inadequate lane and shoulder widths, etc?
In the response include how many and what type of crashes have occurred on the project site in the last five years, describe the basis for your information, include reported accidents and anecdotal information. Provide maps showing accidents locations.
- How does the proposed project address potentially unsafe locations other than crash sites identified above, such as locations where recreational use may create traffic conflicts?
- How does the project address safety for a wide range of users (freight, destination motorists, touring motorists, bicyclists, pedestrians, public transportation)?

The proposed project would make the Gavan Hill segment of the Harbor Mountain/Gavan Hill Trail decidedly safer for all trail users. The existing trail location has well over 1000 steps, most of which are constructed from treated lumber, and are failing at an accelerating rate. Segments of the existing trail without dimensional lumber or native timber structures have native substrate for tread surfacing. The trail has become severely eroded in some of these areas, usually accompanied by a tangle of exposed roots. Steep pitches and the often wet trail conditions exacerbate the hazards trail users currently negotiate. The proposed reroute of the existing trail would lower the overall grade in the project area from 29% to 16% with durable aggregate surfacing over approximately 90% of the trail length, while significantly reducing the need for steps and staircases.

2. ASSET INVESTMENT PLANNING

Improvement of the transportation infrastructure for economy of operation.

- If the proposal includes a bridge, what is the National Bridge Inventory System (NBIS) bridge rating? How will the project extend the service life of the bridge and/or improve the NBIS bridge rating? Would the proposal increase the NBIS rating above Poor (a "Poor" rating is equivalent to "Structurally Deficient" rating starting in 2018).
- What is the current condition of the existing surfacing? If the surfacing is pavement, what is the Pavement Condition Index (PCI)? If the surface is gravel, what is the PASER rating (if available)? How would the project improve the surface condition?
- Is the road included in a surface management system?
- How will this project reduce maintenance or operating costs?
- How does existing demand compare to the capacity of the current facility? Is the need identified in a Local, Regional or State transportation plan for the Federal Land Management Agency plan?

Current surfacing is a predominately comprised of lumber structures (stairs, boardwalk) and native substrate. 30 years would be a typical service life for treated lumber structures on a Southeast Alaska trail. The native substrate in the project area is highly erodible typically with an organic layer over volcanic ash. Rerouting the trail at a reduced grade and using durable materials for tread surfacing is expected to reduce annual maintenance costs by approximately 75% over 20 years.

The existing trail alignment cannot support the amount of use currently occurring nor the expected use. The need for this project is to meet Tongass National Forest Land and Resource Management Plan (USDA Forest Service, 2016) Forest-wide goals and objectives for Recreation and Tourism.

Goal: Provide a range of recreation opportunities consistent with public demand, emphasizing locally popular recreation places and those important to the tourism industry.

Objective: Maintain existing Forest Service system trails to a standard that provides for the health and safety of all users. Construct or reconstruct trails to encourage a healthier lifestyle for the public. Emphasize projects that facilitate community use or community connections.

Objective: Maintain existing recreation sites and facilities to provide for the health and safety of all users. Construct or reconstruct facilities in locations where the need for the facilities are supported by either known use, partnerships for long-term maintenance, or repeated safety concerns...

3. RECREATION AND ECONOMICS

Development and utilization of the Federal Land and its resources. (Show on map)

- Describe any high use Federal recreation sites or Federal economic generators (as determined by the Federal Land Manager) that are accessed by this project. How many visitors access/use the site annually? How does the project enhance access to these sites?
- What renewable or subsistence resources are associated with the Federal Lands?
- Which Federal Lands are accessed by this project? How many acres of Federal Land are accessed by the project? If multiple Federal Lands are accessed, itemize acreage by agency
- How will the proposed project improve the transportation network to support the community's economic goals/needs or meet the needs identified in the National Scenic Byway management plan?
- Are there special or unusual scenic attributes? Is it historic resources such as National Register or have cultural or archaeological significance beyond the ordinary?

The Harbor Mountain Recreation Area (HMRA), which includes parts of the Harbor Mountain Road and Harbor Mountain/Gavan Hill Trail, Harbor Mountain Picnic Area and surrounding lands is one of the most popular recreation destinations near Sitka. The area is incredibly scenic with breathtaking views of Sitka Sound and numerous islands, Mount Edgecumbe and the open Pacific Ocean beyond. HMRA and surrounding federal lands are very popular with deer hunters and berry pickers. The area is rich with WW2 history and parts of several defense related facilities built during the era are still discernible today. For example, the foundation of the radar site built in the 1940's now serves as the foundation for a picnic shelter in the Harbor Mountain Picnic Area.

The HMRA can be accessed via the winding Harbor Mountain Road or the Gavan Hill end of the Harbor Mountain/Gavan Hill Trail (i.e. the project area) via the Sitka Cross Trail. Improvements to the trail will allow a broader spectrum of guided and unguided recreation enthusiasts to experience the route while providing an additional commercial opportunity to outfitter/guides. The steepness of the current alignment combined with the overall poor condition of the trail has resulted in a FS decision to not permit guided use of the trail at this time.

4. MOBILITY

Continuity of the transportation network serving the Federal Land and its dependent communities. Mobility of the users of the transportation network and the goods and services provided

- Identify and list the planning documents directedly related to this project. What is the local or regional priority (high, medium, low) of the project considering the Federal Land, State or County network? How does this proposal fit within these plans and what are the consequences to the transportation system of not addressing these needs?
- Does the proposed project connect to a designated route on the Federal Land Management Agency's FLTP inventory? Are there any future improvements planned on the designated route?
- How would the proposed project address travel impediments on the route (e.g. missing links, travel restrictions, bottlenecks, size/load limits) to improve the continuity of the transportation network? What work has been completed on adjacent sections to create route continuity? Is the road the sole access to the area?
- How would the proposed improvements reduce travel time and congestion, increase comfort, and convenience for the federal land user?
- How would the proposed project improve the choices for alternative modes of travel (pedestrian, bike, bus, or rail)? Would the proposed project make any ADA improvements?

The 2003 Sitka Trail Plan provided a comprehensive vision that has guided the development of the Sitka area trail system, resulting in an impressive list of completed trail projects. It was developed under an MOU by the Forest Service, The City and Borough of Sitka, Alaska State Parks, Sitka Trail Works and other organizations. It designates the Forest Service as the responsible agency for implementing the reconstruction of the Gavan Hill Trail. The plan identifies the reconstruction of Gavan Hill Trail as a priority project due to being, "One of Sitka's most popular trails. Sections of it are currently dangerous to hike." The proposal would directly address the Sitka Trail Plan by completing a priority project. The likely consequences of not completing the proposed project are continued moratorium on commercial use of the route, an increase in injuries to trail users from slips, trips and falls, and potentially closing the route within the next 10 years until funding is secured for the project.

The Harbor Mountain/Gavan Hill trail is a designated FLTP route as is the Harbor Mountain Road and the Sitka Cross Trail. If the proposed project is completed, no major future improvements will likely be needed for the length of the trail in the near future.

The proposed project is the last phase in the total reconstruction of the entire length of the trail, which can be reached at one end by the Sitka Cross Trail and by Harbor Mountain Road at the other. The existing condition of the trail in the project area is currently the

impediment to allowing commercial use over the entire length of trail and opening up a unique opportunity on the Sitka trail system for guided visitors. The proposed reroute will remove an impediment for many less experienced and confident trail users who find the extended steep pitches and current tread conditions too challenging.

The proposed project wouldn't significantly change the time required to hike the trail, but it should increase comfort for the typical trail user. Hikers are likely to spend a lot less time looking down for slipping and tripping hazards with each step and spend more time enjoying the views of the surrounding area. No ADA improvements are planned under this proposal, but there is an ADA accessible segment at the start of the trail from the Harbor Mountain trailhead.

5. SUSTAINABILITY AND ENVIRONMENTAL QUALITY

Protection and enhancement of the rural environment associated with the Federal Lands and its resources.

Note: It is assumed all projects will be constructed in accordance with all environmental regulations.
This scoring is for projects which enhance environmental goals.

If applicable, describe how the project:

- a) Contributes to the environmental goals and objectives of the Federal Land Management Agency and/or other applicable land management plans.
- b) Enhances wildlife connectivity, wildlife habitat and/or aquatic organism passage.
- c) Enhances water quality, riparian and/or wetland function.
- d) Uses design, materials or techniques that would exceed the minimum environmental requirements and/or mitigates an existing environmental problem.
- e) Promotes sustainable practices (e.g. reduces greenhouse gas or vehicle miles traveled).

The proposed project will promote a sustainable recreational activity. The project area is connected via the Sitka Cross Trail to neighborhoods adjacent the town core making it an easily accessible trail by foot or bike for many Sitkans and visitors alike.

Erosion and sedimentation are currently occurring from use of the existing trail. The proposed project would directly mitigate this resource damage by using durable materials to surface the trail. The new trail alignment would be much more sustainable due to a reduction in grade and improved construction techniques and materials.

6. READINESS AND SUPPORT

Project readiness, local support, financial support, capacity and project delivery

- a) List project support, describe how funding this proposal fits with agency priorities and describe the previous federal investment, if known.
- b) Describe the applicant's share of project costs, type of funds, availability of funds and certainty of funds.
- c) Describe the project readiness, and the preferred project delivery schedule (with the knowledge that construction funding for project will be programmed for 2022 and 2023).

The project has not been publicly scoped yet, but is currently supported by Sitka Trail Works, Inc. and Alpine Adventure Run event coordinator Christine Horan. The 2003 Sitka Trail Plan was developed with community input and the proposed project was advanced as a priority project. As mentioned in the response to 2. ASSET INVESTMENT PLANNING (above), the project is an ideal fit to meet agency priorities for recreation and tourism as expressed in the Tongass National Forest Land and Resource Management Plan (USDA Forest Service, 2016).

In the last 10 years, the FS has spent in excess of 1 million dollars on reconstruction of the portion of the Harbor Mountain/Gavan Hill trail outside the project area. The agency has spent an additional \$35,000 to complete a Design Narrative for the proposed project to ensure a more sustainable location for the trail exists and to develop realistic cost estimates for the reconstruction project.

Agency matching funds will be made available for this project from Tongass National Forest allocated trails program dollars.

The Sitka Ranger District will begin the NEPA process within the next month and is expected to complete environment review and permitting early in 2020. Ideally, survey and design including contract preparation would take place in 2021 with construction to follow in 2022.