APPLICA	TY-NINTH LEGISLATURE ATION FOR GRANTS HAWAII REVISED STATUTES	Log No:				
Condition of	2010 20 10 10 10 10 10 10 10 10 10 10 10 10 10	For Legislature's Use Only				
Type of Grant Request:						
GRANT REQUEST - OPERATING	☐ GRANT REC	QUEST CAPITAL				
"Grant" means an award of state funds by the legislatur activities of the recipient and permit the community to be		ecipient, to support the				
"Recipient" means any organization or person receiving	g a grant.					
STATE DEPARTMENT OR AGENCY RELATED TO THIS REQUEST (LEAVE BL. STATE PROGRAM I.D. NO. (LEAVE BLANK IF UNKNOWN):	ANK IF UNKNOWN):					
I. APPLICANT INFORMATION: Legal Name of Requesting Organization or Individual: Girl Scouts of Hawai'i	2. CONTACT PERSON FOR MATTERS INV Name EMMALY CALIBRARO	OLVING THIS APPLICATION:				
Dba:	Title Director of Development					
Street Address: 410 Atkinson Drive, Honolulu, HI 96814	Phone # (808) 675-5516	Fax # (808) 691-9340				
Mailing Address: 410 Atkinson Drive, Suite 2E1, Box 3	Fax # (808) 691-9340					
Honolulu, HI 96814	E-mail ecalibraro@gshawaii.org	1				
3. TYPE OF BUSINESS ENTITY:	6. DESCRIPTIVE TITLE OF APPLICANT'S					
NON PROFIT CORPORATION INCORPORATED IN HAWA FOR PROFIT CORPORATION INCORPORATED IN HAWA LIMITED LIABILITY COMPANY SOLE PROPRIETORSHIP/INDIVIDUAL OTHER		AY AND DRIVEWAY				
. FEDERAL TAX ID #:	7. AMOUNT OF STATE FUNDS REQUESTED	D;				
5. STATE TAX ID#:	FISCAL YEAR 2019: _\$2,000,000					
8. STATUS OF SERVICE DESCRIBED IN THIS REQUEST: NEW SERVICE (PRESENTLY DOES NOT EXIST) EXISTING SERVICE (PRESENTLY IN OPERATION)	SPECIFY THE AMOUNT BY SOURCES OF AT THE TIME OF THIS REQUEST: STATE \$ 500,000 FEDERAL \$ COUNTY \$ PRIVATE/OTHER \$ 3,170,000 (PENDI					

SHARI CHANG, CHIEF EXECUTIVE OFFICER
NAME & TITLE

JAN 1 3 2073 JUP : 440PM

DATE SIGNED

Application for Grants

Please check the box when item/section has been completed. If any item is not applicable to the request, the applicant should enter "not applicable".

I. Background and Summary

This section shall clearly and concisely summarize and highlight the contents of the request in such a way as to provide the State Legislature with a broad understanding of the request. Please include the following:

1. \(\sum A\) brief description of the applicant's background;

Girl Scouts of Hawai'i is a 501(c)(3) nonprofit organization with a mission to build girls of courage, confidence, and character, who make the world a better place. Established in Honolulu in 1917, our Girls Scouts Council is the oldest west of the Mississippi River. We serve over 2,800 girls ranging ages 5-18 who are organized in 286 troops statewide and supported by a network of more than 500 adult volunteers. Our programs are based on the Girl Scout Leadership Experience, which is a model used nationally and developed by Girl Scouts USA based on rigorous research. Activities are always girl-led and focus on three key pathways to developing leadership among young girls by helping each to:

- Discover her special skills and talents, find the confidence to set challenging goals for herself, and strive to live by her values
- Connect with others, thereby learning how to team up, solve conflicts, and have healthy relationships
- Take Action to make the world a better place, while learning about her community and the world in the process

The goal of this capital improvement project is to create safer and easier access to Girl Scouts of Hawai'i's Camp Paumalū, located on the North Shore of O'ahu, by addressing deficiencies in off-site access roadways and on-site driveways.

Accomplishment of this goal will support Girl Scouts of Hawai'i's ability to:

- Ensure public safety and compliance with local code and permitting regulations, including providing adequate emergency vehicle access to and from the property
- Provide each on-island Girl Scouts of Hawai'i's members with at least one outdoor leadership, and STEM learning, and recreation experience annually

Rev 11/21/17

- Pursue on-site facility improvements towards the long-term aim of increasing camp utilization levels, as outlined in the property's Master Plan

Capital Improvement Need. Donated to Girl Scouts of Hawai'i in 1951, Camp Paumalū encompasses 135.5 acres sitting alongside the Ko'olau mountains approximately two miles inland from Sunset Beach on the North Shore of O'ahu. Today, the camp is long overdue for infrastructure upgrades as well as renovations of facilities that were built as early as 1952. In 2012, Girl Scouts of Hawai'i contracted G70 International to develop a Master Plan for the camp, thereby ensuring a planned and strategic approach to the improvements over a period of time, based on available funding. During the master planning process, improvements of on-site driveways as well as off-site access roadways leading up to Camp Paumalū emerged as a top priority due to concerns over public safety and as a necessary step towards the long-term aim of growing the camp's programming.

In 2013, Girl Scouts of Hawai'i was approved for a \$500,000 capital improvement project grant-in-aid from the State of Hawai'i to fund planning, design, and initial construction of the road improvements. Due to this generous support, we were able to hire G70 International to complete a comprehensive assessment of the surface transportation infrastructure serving Camp Paumalū, which was finalized in August of 2017. The cost of remaining recommended roadway improvements was determined to be \$3,173,964.

Camp Paumalū is accessed from Kamehameha Highway via approximately 2.5 miles of offsite, mostly paved roadways that cross over neighboring, privately owned properties. Girl Scouts of Hawai'i maintains access to these roadways through an easement agreement that was established as part of the original deed for the property. In addition, approximately 1.7 miles of on-site, unpaved (gravel) driveways traverse mountainous terrain throughout the Camp Paumalū property. The 2017 Assessment identified instances of the following deficiencies along both off-site access roadways and on-site driveways:

- Narrow road widths, inadequate turnaround areas, and lack of an all-weather surface that will support emergency vehicles
- Steep and uneven grading
- Inadequate sight distance along horizontal bends and crest vertical curves
- Poor drainage, washout, and severe rutting and erosion because of little to no existing drainage systems
- Damaged roadside barriers along a cliff

The above deficiencies heighten the risk for accidents among vehicles traveling to Camp Paumalū. Current roadway and driveway conditions also fail to meet minimum City & County of Honolulu code and permitting requirements that would be triggered if any renovation of existing facilities or development of new facilities at Camp Paumalū is pursued, as recommended under the 2012 Master Plan. Specifically, significant roadway improvements are required to provide adequate access to the camp for emergency response vehicles in the case of fire, medical, environmental and other incidents. Additionally, if there is a need for a coastal evacuation due to tsunami type conditions, access to an improved roadway will offer North Shore residents and visitors an inland option to higher grounds.

Programmatic Need. Over its 100-year history of serving the Hawaiian Islands, Girl Scouts of Hawai'i has played a significant role in meeting the developmental needs of local girls, including those related to leadership, education, and social, emotional, and physical well-being. Research released by the Girl Scouts Research Institute (GSRI) and other sources highlight the continued importance of addressing the developmental needs of girls, along with the disparities undermining their future.

- From 2007-2014, the proportion of girls ages 5-17 living in poverty in Hawai'i rose from 9% to 16% for a total of 16,891 girls, while a staggering 68% of Hawai'i's 4th grade girls are not proficient in reading and math (GSRI, 2017). High-quality out-of-school time programs can counter some of the effects of poverty and may account for up to a 34% variance in academic achievement if academic components are included (Chicago Collaborative for Academic, Social, and Emotional Learning, 2007). However, we are failing to meet this need locally. It is estimated that total of 59,057 of Hawai'i's children who would be enrolled in an after school program if one were available to them, with cost being a major barrier (Afterschool Alliance, 2014).
- Females are vastly underrepresented in leadership roles. Women hold only 12% of mayoral seats in the 100 largest American cities, 10% of governorships, and 28% of seats in the Hawai'i State Legislature (Center for American Progress, 2014). Many girls are crippled by embarrassment when in a leadership role, with 41% reporting that they feel uncomfortable when speaking to a group and 39% who have been put down by peers when they have tried to lead (GSRI, 2014).
- Women are also highly outnumbered by men in STEM Careers, making up only 30% of STEM professionals in Hawai'i (Bureau of Labor Statistics, 2014). Girls are precocious learners, yet begin abandoning science/math related aspirations as early as 5th grade due to long-held gender stereotypes that persist even among young children (American Association of University Women, 2010). Nine of the

10 fastest-growing occupations requiring a bachelor's degree will involve significant scientific or mathematical training (U.S. Department of Labor, 2017). In Hawai'i, an additional 16,500 workers with STEM skills are needed every year (Maui Economic Development).

Girl Scouts has a long history of getting girls outdoors as part of its approach to youth development. However, parental protectiveness, increased urbanization and use of technology devices, and a host of structured activities competing for children and youth's time have led to girls spending less meaningful time outside. Accordingly, Girl Scouts of Hawai'i's seeks to engage each member in at least one outdoor trip each year. In a recent study of nearly 2,000 Girl Scout alumnae, 49% described camping trips as one of the most positive aspects of their Girl Scout experience and 47% reported that they had first tried camping through Girl Scouts (GSRI, 2014). Alumnae also ranked exposure to nature as the foremost benefit of belonging to Girl Scouts (GSRI, 2012).

Camp Paumalū preserves open space on the North Shore of Oʻahu and connects Girl Scouts and other community members to intimate, high-quality outdoor experiences, thereby inspiring them to become better stewards of the natural environment and supporters of sustainable livelihoods. As a result, Girl Scouts alumnae report levels of environmental stewardship much higher than national averages (GSRI, 2014). Our camps also focus on exposing girls to STEM concepts while teaching problem-solving skills, building confidence, and fostering relationships through teamwork – all necessary skills for the development of leadership. Outdoor field trips, archery, and other friendly competitive games provide girls with a socially supportive setting to practice cooperation, improve their physical fitness, and empower themselves adventurous challenge seekers, rather than avoid things that are difficult.

4. Describe the target population to be served; and

Camp Paumalū's primary target beneficiaries are Girl Scouts of Hawai'i members residing on Oahu, who currently total 1,816 girls. We serve girls ages 5-18 from all backgrounds, including 130 members in our After School Leadership Program targeting economically disadvantaged girls who would otherwise face significant barriers to participating in our programs through our traditional troops. Forty-five (45%) of our members report low household income, as defined by an annual income less than \$78,300 for a family of four. Our membership reflects the ethnic diversity of Hawaii, with the largest percentages identifying as multiple races (21%), Caucasian (18%), Asian American (16%), and Hawaiian/Pacific Islander (5%).

A secondary target market for Camp Paumalū includes school groups, church groups, and other community-based organizations seeking outdoor recreation, team-building, leadership, and education opportunities. We estimate that over 1,200 users from these external groups currently benefit from Camp Paumalū annually.

Camp Paumalū is accessed as both a day-trip and overnight camp site. Use primarily occurs two to three times per month and over a weekend. Peak occupancy of 220 users may be achieved during the summer, though typical occupancy levels are normally less. Master planned conditions call for increased utilization of Camp Paumalū during three to four days out of the week and at a higher rate throughout the year. There is significant potential for expanding the number of users that could be served by the camp, especially if we are able to move forward with renovating facilities after completing the necessary road improvements.

5. Describe the geographic coverage.

The land-locked, 135.5-acre Camp Paumalū property is located on the North Shore of Oʻahu alongside the Koʻolau mountain range approximately two miles inland from Sunset Beach. Camp Paumalū is bordered by Federal land to the south and east (as part of the Kahuku Training Area) and by State of Hawaii land to the west (as part of the Pupukea-Paumalu State Park Reserve). The lands makai of the camp are privately owned. As part of the ahupuaʻa of Paumalū in the moku of Koʻolauloa, Camp Paumalū is adjacent to the ahupuaʻa of Pūpūkea, Waimea, and Kaunala but serves users residing throughout the island of Oʻahu.

II. Service Summary and Outcomes

The Service Summary shall include a detailed discussion of the applicant's approach to the request. The applicant shall clearly and concisely specify the results, outcomes, and measures of effectiveness from this request. The applicant shall:

Describe the scope of work, tasks and responsibilities;

The following improvements to off-site access roadways and on-site driveways of Camp Paumalū will be undertaken:

Stabilization of a 20 ft. wide, 250 linear ft. long portion of the on-site gravel road
fronting the camp's central showers and pool; simultaneous construction of a firetruck turnaround near the pool at the main driveway terminus (Section 14)

- Widening 2,750 linear feet of a one-lane, paved portion of the private access road leading to the camp to 16 ft. paved width; simultaneous reconstruction of the crest vertical curve to provide adequate sight distance (Section 5)
- Stabilization of the following 16 ft. wide portions of road:
 - 3,820 linear ft. of unpaved, partially graveled last portion of private access road extending up to the camp property; simultaneous reconstruction of the crest vertical curve to provide adequate sight distance (Section 6)
 - 4,500 linear ft. of the camp's main on-site gravel road; simultaneous clearing of vegetation as needed (Sections 7, 8, 9)
 - 500 linear ft. of gravel/dirt road that serves as the camp's bus loop where vehicles can access a loading/offloading area as well as turnaround to exit the property (Section 11)
- Replacement of 1,450 linear ft. of damaged cable guard along the private access road leading to the camp (Section 3)
- Replacement of damaged reflectors and restriping of fading pavement markings affecting 700 linear ft. of the private access road leading to the camp (Section 4)
- Filling of existing ruts with compacted gravel within 3,575 linear ft. of on-site driveways leading to camp sites (Sections 12, 13, 14)

Start project: July 2018

Conceptual Design: July 2018 - August 2018

Design and permitting: September 2018 – February 2019 Bidding and Contracting: March 2019 – April 2019

Construction: May 2019 - August 2019

Closeout: September 2019

3. Describe its quality assurance and evaluation plans for the request. Specify how the applicant plans to monitor, evaluate, and improve their results; and

Regularly scheduled meetings with contracted project management firm G70 International will consist of evaluations, site visits, budget and schedule review, and quality control. Girl Scouts of Hawai'i also benefits from quarterly evaluation against national averages for program and fiscal criteria, including girl engagement, member trends and retention, market share, program sustainability, cash reserves, product sales, and income diversity. Additionally, every other year, Girl Scouts of the USA assists us in

polling volunteers and girl families to evaluate program outcomes and measure the impact of girl scouting in Hawai'i.

Girls mark their individual progress by earning Badges and Patches, which represent the knowledge gained and the actions carried out in each Leadership Journey delivered. Troop Advisors track awards earned and the types and number of activities completed by their troop. If awards are not being achieved at the expected rate, Girl Scouts of Hawai'i increases resources and support to by adding or modifying materials in "Journey Kits" to customize curricular instructions and tools that Troop Advisors can utilize to deliver a better learning experience.

4. \(\sum List the measure(s) of effectiveness that will be reported to the State agency through which grant funds are appropriated (the expending agency). The measure(s) will provide a standard and objective way for the State to assess the program's achievement or accomplishment. Please note that if the level of appropriation differs from the amount included in this application that the measure(s) of effectiveness will need to be updated and transmitted to the expending agency.

The capital improvement work to complete will require Girl Scouts of Hawai'i to issue signed contracts for construction services rendered. The State of Hawai'i will be able to refer to these instruments, which will clearly outline scope of work and expectations, in order to assess whether the proposed capital improvement project has effectively accomplished its objectives. In part, roadway and driveway improvements will be deemed successful if they comply with the appropriate federal, state, and local laws and regulations, including the City & County of Honolulu's Fire and Building Codes requiring that appropriate emergency vehicles can properly access the property to ensure public safety.

III. Financial

Budget

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- a. Budget request by source of funds (attached)
- b. Personnel salaries and wages (n/a)
- c. Equipment and motor vehicles (n/a)
- d. Capital project details (attached)
- e. Government contracts, grants, and grants in aid (attached)

Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total Grant
\$550,000	\$600,000	\$550,000	\$300,000	\$2,000,000

Harold K.L. Castle Foundation - \$1,000,000

Clarence T.C. Ching Foundation - \$500,000

Marguerite Gambo Wood Foundation - \$250,000

McInerny Foundation - \$125,000

Strong Foundation - \$100,000

Atherton Family Foundation - \$50,000

Matson Foundation - \$20,000

Cooke Foundation - \$15,000

4. The applicant shall provide a listing of all state and federal tax credits it has been granted within the prior three years. Additionally, the applicant shall provide a listing of all state and federal tax credits they have applied for or anticipate applying for pertaining to any capital project, if applicable.

Not applicable.

5. A The applicant shall provide a listing of all federal, state, and county government contracts, grants, and grants in aid it has been granted within the prior three years and will be receiving for fiscal year 2019 for program funding.

See attached government contracts, grants, and grants in aid table.

6. The applicant shall provide the balance of its unrestricted current assets as of December 31, 2017.

The balance of Girl Scouts of Hawai'i's unrestricted assets as of December 31, 2017 is \$1,130,707.

IV. Experience and Capability

1. Necessary Skills and Experience

The applicant shall demonstrate that it has the necessary skills, abilities, knowledge of, and experience relating to the request. State your experience and appropriateness for providing the service proposed in this application. The applicant shall also provide a

listing of verifiable experience of related projects or contracts for the most recent three years that are pertinent to the request.

For a century, Girl Scouts of Hawai'i has provided local girls with engaging, transformative leadership experiences while building a network of courageous and confident girls and young women in our community. We are affiliated with Girl Scouts of the USA, a strong, nationwide organization, and utilize evidence-informed curriculum and practices supported by the national Girl Scout Research Institute. Our governance consists of thoughtful leadership by experienced professionals and volunteers working under a 2017-2020 Strategic plan, which was informed by Hawai'i stakeholder surveys and aligned with the Girl Scouts of the USA strategic plan.

Our organization relies on a vast network of more than 500 volunteers and organizational partners to deliver program activities and keep costs down. Adult volunteers are trained to serve as Troop Leaders, Cookie Volunteers, Service Unit Volunteers, and Camp/Seasonal Volunteers. Partners such as the Boys & Girls Club and the Pacific Aviation Museum allow us to deliver programs and events at their facilities free of charge. Monsanto employees donate hundreds of hours volunteering to do demonstrations to Girl Scouts and upgrade and maintain our camping facilities. Our partnerships with the University of Hawaii and Chaminade University give Girl Scouts exposure to STEM activities.

Girl Scouting introduces more girls to leadership roles and inspiring role models than any other organization. In fact, 80% of Girl Scouts are leaders compared to only 20% of their peers (Girl Scout Impact Study, GSRI, 2017). In 2015, 75% of female senators, 53% of female members of the House of Representatives, and five of the six female governors at the time were Girl Scout alumnae (Girl Scouts of the USA Public Policy & Advocacy Office, 2015). In addition, more than half (52%) of women in business are former Girl Scouts (Girl Scout Alumnae Businesswomen Research, GSRI, 2015).

Alumnae display positive life outcomes to a greater degree than their peers with regard to sense of self, volunteerism, community work, civic engagement, education, and income/socioeconomic status (Girl Scouting Works: The Alumnae Impact Study, GSRI, 2012). GSRI most recently reported that compared to non-Girl Scouts, Girl Scouts ages 5-18 earn better grades, have higher academic aspirations, and desire careers in industries in which women are underrepresented such as STEM, business, or law (Girl Scout Impact Study, GSRI, 2017). The study also determined that Girl Scouts are:

- 35% more likely to engage in leadership activities when working in a group
- 33% more likely to take part in outdoor activities like hiking or camping
- 29% more likely to exhibit community problem-solving skills

- 25% more likely to engage in healthy activities like exercise and eating right
- 20% more likely to seek challenges and learn from setbacks

The applicant shall provide a description of its facilities and demonstrate its adequacy in relation to the request. If facilities are not presently available, describe plans to secure facilities.

Camp Paumalū has 25,000 gross square feet of facilities dispersed across the 135-acre property and connected through a network of trails and driveways. The entire camp can accommodate up to 220 persons, with permanent sheltered accommodation for about 150.

There are four separate camping sites consisting of cabins and platform tents for sleeping shelter and restroom/shower facilities for each (168 beds total):

- Unit #1 Makaha (50 beds)
- Unit #2 Kani Ka Pila (48 beds)
- Unit #3 Kolehale (30 beds)
- Unit #4 Lani Ko Luna (40 beds)

A fifth camp site does not have facilities on-site and is reserved for tent camping.

Common central facilities include:

- Hale Hui Lodge with kitchen and pavilion (170-person capacity)
- Central Showers (buildings #1 & #2) and Swimming pool (50-person capacity)
- Health center
- Ranger's house (caretaker's residence)

V. Personnel: Project Organization and Staffing

1. Proposed Staffing, Staff Qualifications, Supervision and Training

The applicant shall describe the proposed staffing pattern and proposed service capacity appropriate for the viability of the request. The applicant shall provide the qualifications and experience of personnel for the request and shall describe its ability to supervise, train and provide administrative direction relative to the request.

Kathleen Chu, Board Member and Chair of Property Committee – Ms. Chu will be responsible for leading the fundraising and quality assurance efforts for this capital improvement project. Ms. Chu is the former Area Manager and project manager in CH2M HILL's Honolulu office of 70 employees. She has more than 25 years of

professional engineering experience in highways, roads, pavement design, hydraulic design, storm water quality measures, staging and traffic control, site development, transportation planning and construction services in both the private and public sector. She is licensed in both California and Hawaii. Her public service experience provides knowledge of public agency's concerns such as regulatory issues, maintenance and administrative needs and requirements. Through this diverse background in civil engineering, Ms. Chu has managed projects which involved extensive collaboration and negotiation with both private and public entities, as well as the public at large, including coordination with various utility agencies and significant right-of-way acquisition.

Michael Koehne, Property Manager/Camp Ranger – Mr. Koehne has served in this role for all Girl Scouts of Hawai'i's properties for eight years, including three outdoor camps: Camp Paumalū on O'ahu's North Shore, Camp Pi'iholo in Makawao on Maui, and Camp Kilohana on Hawai'i Island. His duties include: the overall care of the land and buildings (grounds keeping, repair, and upkeep of all buildings and equipment); keeping senior management informed on the conditions, issues, necessary repairs at the properties; as well as managing the caretakers of the camps. Mr. Koehne will help to coordinate onsite capital improvement project construction activities.

G70 International, Contractor – Established in 1971, G70 is an award-winning design firm of architects, civil engineers, planners, interior designers, and asset managers. Their expertise covers master planning for major urban land holdings; conceptual design and development of resort communities and housing developments locally and abroad; comprehensive support for commercial, educational and medical facilities; and planning and design of sustainable and culturally appropriate developments. G70 is the same firm that created Camp Paumalū's 2012 Master Plan as well as 2017 Assessment of surface transportation infrastructure, and will be contracted to provide project management services for this capital improvement project.

The applicant shall illustrate the position of each staff and line of responsibility/ supervision. If the request is part of a large, multi-purpose organization, include an organization chart that illustrates the placement of this request.

See attached.

The applicant shall provide the annual salaries paid by the applicant to the three highest paid officers, directors, or employees of the organization by position.

Chief Executive Officer - \$110,250 Chief Financial Officer - \$90,000 Chief Operating Officer - \$88,000

VI. Other

The applicant shall disclose any pending litigation to which they are a party, including the disclosure of any outstanding judgement. If applicable, please explain.

Not applicable.

The applicant shall specify any special qualifications, including but not limited to licensure or accreditation that the applicant possesses relevant to this request.

Girl Scouts of Hawai'i is affiliated with Girl Scouts of the USA, a strong, nationwide organization.

3. Private Educational Institutions

The applicant shall specify whether the grant will be used to support or benefit a sectarian or non-sectarian private educational institution. Please see <u>Article X, Section 1</u>, of the State Constitution for the relevance of this question.

No State funds will be used to directly support a sectarian or non-sectarian educational institution. The proposed grant, if awarded, will support infrastructure improvements on property of Girl Scouts of Hawai'i, thereby directly benefiting our 501(c)(3) nonprofit organization. Future student groups from local private schools may indirectly benefit from outdoor leadership and learning opportunities to be made increasingly accessible as a result of the grant activities.

The applicant shall provide a plan for sustaining after fiscal year 2018-19 the activity funded by the grant if the grant of this application is:

- (a) Received by the applicant for fiscal year 2018-19, but
- (b) Not received by the applicant thereafter.

The proposed activity is a discrete capital improvement project that will not require sustained funding beyond the grant period. Recommendations provided in the 2017 Assessment of Camp Paumalū's surface transportation infrastructure were prioritized, so that they may be implemented in piecemeal fashion if there is a delay in securing funding to cover the entire cost of the proposed roadway and driveway improvements. The camp's overall Master Plan was also developed in 2012 to ensure a planned and strategic approach to property improvements over time based on available funding. The activities laid out in the Master Plan comprise an investment in the property's potential to host more visitors, thereby serving the community to a greater degree and generating increased revenue to help sustain operations.

Girl Scouts of Hawai'i's financial position has shown marked strength over the past three years. In fiscal year 2015, our change in net assets finished ahead of projections with an actual value of \$144,369 versus the projected (\$193,863). We ended fiscal 2016 with a positive change in net assets of \$120,273, and project a year-over-year increase in revenue for fiscal year 2017 with a forecast in net assets of \$232,269. In fiscal year 2016, Girl Scouts of Hawai'i successfully secured \$401,276 in funding from government (\$237,322), private foundations (\$177,427), and corporations (\$46,530). We will continue to seek private foundation, corporate, and nationally competitive STEM education-focused grants to secure revenue for our programming.

Approximately 64% of our revenue, or \$2.46 million for fiscal year 2016, is raised through the Girl Scout earned income. Our 2017-2020 strategic plan calls for greater diversification of revenue by growing sources of earned income including membership fees for traditional troops, camp rental fees, and individual giving. This year, we launched a new giving society called Partners in Leadership through which members pledge a major gift annually for three years to support Girl Scouts of Hawai'i.

If the applicant is an organization, the applicant shall submit one (1) copy of a certificate of good standing from the Director of Commerce and Consumer Affairs that is dated no earlier than December 1, 2017.

See attached.

6. Declaration Statement

The applicant shall submit a declaration statement affirming its compliance with Section 42F-103, Hawaii Revised Statutes. (Link)

Applicant	Girl Scouts of Hawai'i	

See attached Declaration Statement. Girl Scouts of Hawai'i complies with all standards for the award of grants under Section 42F-103 of the Hawaii Revised Statutes.

7. Number of Purpose Purpose

The applicant shall specify whether the grant will be used for a public purpose pursuant to Section 42F-102, Hawaii Revised Statutes. (Link)

The proposed grant, if awarded to Girl Scouts of Hawai'i, will be used for public purposes pursuant to Section 42F-102 of the Hawaii Revised Statutes.

DECLARATION STATEMENT OF APPLICANTS FOR GRANTS PURSUANT TO CHAPTER 42F, HAWAI'I REVISED STATUTES

The undersigned authorized representative of the applicant certifies the following:

- The applicant meets and will comply with all of the following standards for the award of grants pursuant to Section 42F-103, Hawai'i Revised Statutes:
 - a) Is licensed or accredited, in accordance with federal, state, or county statutes, rules, or ordinances, to conduct the activities or provide the services for which a grant is awarded;
 - Complies with all applicable federal and state laws prohibiting discrimination against any person on the basis of race, color, national origin, religion, creed, sex, age, sexual orientation, or disability;
 - c) Agrees not to use state funds for entertainment or lobbying activities; and
 - d) Allows the state agency to which funds for the grant were appropriated for expenditure, legislative committees and their staff, and the auditor full access to their records, reports, files, and other related documents and information for purposes of monitoring, measuring the effectiveness, and ensuring the proper expenditure of the grant.
- If the applicant is an organization, the applicant meets the following requirements pursuant to Section 42F-103, Hawai'i Revised Statutes:
 - a) Is incorporated under the laws of the State; and
 - b) Has bylaws or policies that describe the manner in which the activities or services for which a grant is awarded shall be conducted or provided.
- If the applicant is a non-profit organization, it meets the following requirements pursuant to Section 42F-103, Hawai'i Revised Statutes:
 - a) Is determined and designated to be a non-profit organization by the Internal Revenue Service; and
 - Has a governing board whose members have no material conflict of interest and serve without compensation.

Pursuant to Section 42F-103, Hawai'i Revised Statutes, for grants used for the acquisition of land, when the organization discontinues the activities or services on the land acquired for which the grant was awarded and disposes of the land in fee simple or by lease, the organization shall negotiate with the expending agency for a lump sum or installment repayment to the State of the amount of the grant used for the acquisition of the land.

Further, the undersigned authorized representative certifies that this statement is true and correct to the best of the applicant's knowledge.

Girl Scouts of Hawai'i	
(Typed Name of Individual or Organizat	ion)
	1/18/13
	(Date)
Shari Chang	Chief Executive Officer
(Typed Name)	(Title)

BUDGET REQUEST BY SOURCE OF FUNDS

Period: July 1, 2018 to June 30, 2019

Applicant:	Girl Scouts of Hawai'i

BUDGET CATEGORIES	Total State Funds Requested (a)	Total Federal Funds Requested (b)	Total County Funds Requested (c)	Total Private/Other Funds Requested (d)
A. PERSONNEL COST				
1. Salaries				
2. Payroll Taxes & Assessments				
3. Fringe Benefits				
TOTAL PERSONNEL COST				
B. OTHER CURRENT EXPENSES				2
1. Airfare, Inter-Island				
2. Insurance				
3. Lease/Rental of Equipment				
4. Lease/Rental of Space				
5. Staff Training				
6. Supplies				
7. Telecommunication				
8. Utilities				102
9				
10				
11				_
12				
13				
14	_			
15				
16				
17				
	_		-	
18				
19				
20				The second
TOTAL OTHER CURRENT EXPENSE	S			100
C. EQUIPMENT PURCHASES			1.0	
D. MOTOR VEHICLE PURCHASES				
E. CAPITAL	2,000,000		7.0	2,060,000
TOTAL (A+B+C+D+E)				
SOURCES OF FUNDING (a) Total State Funds Request	ed	Budget Prepared I	Ву:	8088755516
(b) Total Federal Funds Reque		Name (Please type or p	rint)	Phone
(c) Total County Funds Reques				1/18/2018
(d) Total Private/Other Funds Reques				Date
	7 (74 7 - 34)	Shari Chang, CEO	0	
TOTAL BUDGET		Name and Title (Please	type or print)	

BUDGET JUSTIFICATION - CAPITAL PROJECT DETAILS

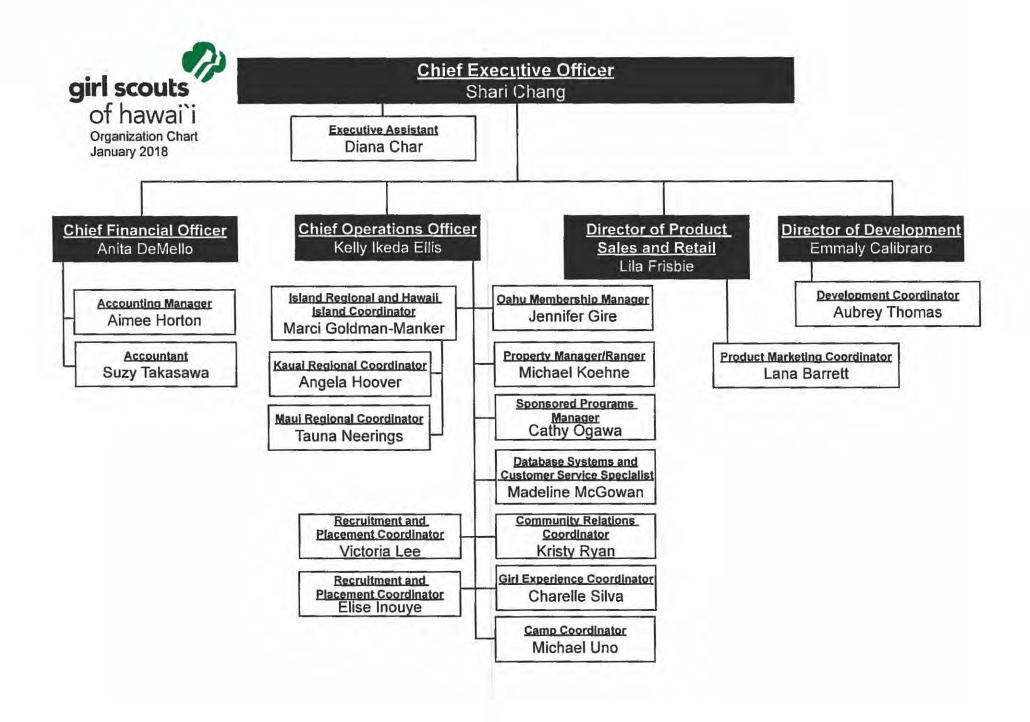
Period: July 1, 2018 to June 30, 2019

		FUNDI	NG A	MOUNT RE	EQU	ESTED			
TOTAL PROJECT COST		ALL SOURCE				TATE FUNDS REQUESTED	OF FUNDS REQUESTED	FUNDING REQUIRED IN SUCCEEDING YEARS	
	FY:	2016-2017	FY	2017-2018	F	Y:2018-2019	FY:2018-2019	FY:2019-2020	FY:2020-202
PLANS	\$	16,875			_				
LAND ACQUISITION					_				
DESIGN	\$	900	\$	75,000	\$	125,000			
CONSTRUCTION	-		\$	407,225	\$	1,875,000			
EQUIPMENT	-								
TOTAL:					\$	2,000,000.00			

GOVERNMENT CONTRACTS, GRANTS, AND / OR GRANTS IN AID

Applicant:	Girl Scouts of Hawaii	Contracts Total:	1,875,000

	CONTRACT DESCRIPTION	EFFECTIVE DATES	AGENCY	GOVERNMENT ENTITY (U.S. / State / Haw / Hon / Kau / Mau)	CONTRACT VALUE
1	City and County G.I.A. (After School Outreach Leadership Program)	10/1/17-9/30/18	Department of Community Services	City and County o	\$ 125,000
2	State Supplemental Agreement (Road to Paumalu OCS-CIP-15-13)	6/1/15-5/31/18	Office of Community Services	State of Hawaii	\$ 500,000
3	State G.I.A. (Contract 63916)	1/30/15-12/31/18	BLNR	State of Hawaii	1,250,000
4				Ctato of Harran	1,200,000
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Department of Commerce and Consumer Affairs

CERTIFICATE OF GOOD STANDING

t, the undersigned Director of Commerce and Consumer Affairs of the State of Hawaii, do hereby certify that

GIRL SCOUTS OF HAWAI'I

was incorporated under the laws of Hawaii on 05/03/1940; that it is an existing nonprofit corporation; and that, as far as the records of this Department reveal, has complied with all of the provisions of the Hawaii Nonprofit Corporations Act, regulating domestic nonprofit corporations.



IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of the Department of Commerce and Consumer Affairs, at Honolulu, Hawaii.

Dated: January 11, 2018

Catani. Owal Colon

Director of Commerce and Consumer Affairs

Girls Scouts of Hawaii - Camp Paumalu

Girl Scout Camp Road, Haleiwa, Oahu Hawaii TAX MAP KEY: (1) 5-9-006:012

Driveway Assessment (Final)



Prepared for:

Girl Scouts of Hawaii 410 Atkinson Drive, Suite 2E1, Box 3 Honolulu, Hawai'i 96814

G70

Prepared by:

Group 70 International, Inc. 925 Bethel Street, 5th Floor Honolulu, Hawai'i 96813

August 25, 2017

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1 Introduction

1.1 Background

The Girl Scouts of Hawaii (GSH) Camp Paumalu site is located on a land-locked, 135.5-acre property, on Oahu's north shore [TMK (1) 5-9-006:012]. The site is approximately 2 miles inland from Sunset Beach and sits along the ridges of the Koolau mountain range. The property is landlocked and bordered by forest reserves, state park reserves and agricultural lands belonging to the Federal Government, the State of Hawaii and private land owners, respectively. See Figure 1, Location Map.

The Girl Scouts of Hawaii (GSH) Camp Paumalu site was donated to GSH in 1951 and continues to serve users with facilities built as early as 1952. Due to the age of facilities and extent of deferred maintenance, the camp is long overdue for updating and renovation of the existing buildings and infrastructure. Since funding and resources are limited, a Master Plan for the camp was developed in 2012 to ensure a planned and strategic approach to the renovation was implemented over time based on available funding.

Within the Master Plan, roadway improvements were proposed to support renovation of existing facilities and development of new facilities, specifically to improve access in order to comply with City and County of Honolulu Fire Code and Building Codes so that the Master Plan can be implemented. In 2013, GSH requested \$4,500,000 from the State to improve the roadway to the camp as described in the Master Plan. GSH was awarded a \$500,000 Capital Improvement Project (CIP) grant, approximately 11% the amount requested, to fund planning, design and construction of road improvements to "address deficiencies in paved and unpaved roads, driveways, and parking areas."

As part of a separate effort to address wastewater issues with the Environmental Protection Agency (EPA), a \$1,250,000 Grant-In-Aid (GIA) was also obtained from the State. Although the GIA is associated with wastewater improvements, driveway improvements that are necessary to implement the wastewater upgrades may potentially be funded by the GIA grant.

1.2 Purpose and Limitations

Due to limited funding, full buildout of road improvements conceptualized in the Master Plan is not feasible at the time of this report. As such, the purpose of this report is to:

- Document existing roadway and driveway conditions based on visual observation, available records GIS data and discussion with GSH staff (without a topographic, boundary or ALTA survey);
- Assess existing roadway and driveway conditions against codes and standards, and recommend improvements.
- 3. Recommend improvements to be funded with the CIP grant.

2 Existing Use and Ownership

2.1 Owners and Easements

Camp Paumalu is landlocked and is not directly adjacent to a public Right-of-Way (ROW). The property is accessed from Kamehameha Highway through approximately 2.5 miles of offsite roadways that cross over neighboring properties including a private roadway lot, and a series of access easements as

described in Table 2.1 and depicted in Figure 1. The existing offsite roadways appear to be located within the access easements, but confirmation by a land surveyor is recommended during design.

Road Segment	Owner	Type of Legal Access	Users	Width of Legal Access
Comsat Road	Paumalu Mauka Ranches	Roadway Lot [TMK 5-8-005:002]	Privately Owned; Publicly Accessible	~30'
Comsat Road		Easement A		441
	Intelsat Global	Easement 6	Privately Owned; Accessed by Multiple Private Users	441
	Service, LLC	Easement B	by Multiple Private Osers	441
GSH Onsite Roads/Driveways	Girl Scouts of Hawaii	Driveway within Private Property [TMK 5-9-006:012]	Privately Owned and Accessed - Camp Users Only	N/A

Table 2.1: Road Segment Owners and Easements

2.2 Roadway Access and Users

Comsat Road is a privately owned, publicly accessible road with unrestricted access off Kamehameha Highway up to the Intelsat secured electronic gate. The gate marks the transition between publicly accessible portion of Comsat Road and Intelsat's privately accessed portion of road. Use of Comsat Road beyond this point is restricted to Paumalu Mauka Ranches, Intelsat Global Service LLC, GE American Communications, Inc., and the Girl Scouts of Hawaii. Access into the GSH property is restricted to camp users approved by GSH.

2.2.1 Traffic Volumes

Vehicular traffic volumes on the roadway up to Camp Paumalu are very small and are limited to trip generation from the private users who access the roadway. Trip generation by GSH staff and visitors consists mainly of vans and busses that drop of and pick up large groups. However, private vehicles are occasionally driven into the property by GSH staff and camp users that are not part of a large, bussed group. Bus drivers are generally familiar with the access road and terrain, while drivers of private vehicles are not.

Camp Paumalu staff and visitors are typically brought to the site in groups primarily on weekends with peak occupancy of Camp Paumalu at 220 users. Therefore, the average Daily Traffic (ADT) generated by GSH over a 1-week period is anticipated to be quite minimal when operating at peak occupancy and not anticipated to exceed an Onsite ADT of 100 vehicle-trips. Camp use records support this assumption with typical reservations and use occurring up to 2 to 3 times a month, primarily over a weekend.

The addition of other private users from Intelsat and the Paumalu Mauka Ranches is minimal and appears to consist mainly of employees and land owners in private vehicles that are generally familiar with the access road.

Aerial imagery indicates the properties served by the privately accessed portion of Comsat Road contain approximately 40 delineated parking spaces and 2 agricultural dwellings. As such, ADT generated by neighboring properties during peak use is anticipated to be minimal (ADT<100). When combined with peak use at Camp Paumalu, offsite ADT is not anticipated to exceed 200 vehicle-trips.

3 Existing Conditions

3.1 Existing Topography

The entrance to Camp Paumalu is located at approximately 630' above mean sea level (MSL), over 600' higher in elevation and 2 miles mauka from the access point off Kamehameha Highway.

- Offsite terrain consists of an approximately 3,000' region of mountainous terrain with 300' of elevation gain and a 9,000' region of rolling terrain with 300' of elevation gain.
- Onsite terrain consists of mountainous terrain with elevations that range between 600' and 800' above MSL. Onsite roads span 2 gulches to connect facilities located throughout 3 separate ridges.

3.2 Existing Roads and Driveways

In the absence of topographic survey, the existing road geometry assessed in this report was generated based on aerial imagery and field measurement (GPS unit with up to 22' positioning error and a 100' tape measure). As such, existing road geometry should be verified during design with topographic or aerial survey.

3.2.1 Comsat Road - Public Access

The publicly accessible portion of Comsat Road is a two-lane paved road approximately 1,200' long that extends from Kamehameha Highway to the Intelsat property line, where a "Private Road" sign delineates the transition to privately accessed road. This segment of road is in fair condition, but has been patched over time as utilities have been repaired or replaced. The roadway does not have any street lights or posted speed limits. Signage consisted of "Private Land", "No Trespassing", "Weight Limit 10 Tons" and "Pedestrians and Bicycles Prohibited" signs at the end of Section 1. The roadway has grassed, unpaved shoulders on both sides and no drainage system except for about 300 feet of curb and gutter on the uphill end of the road where it follows the base of the cliff. Based on visual observation of the roadway, there do not appear to be any horizontal or vertical geometric deficiencies.

Road	Section	Length	Description	Paved/Travel Width	Clear Width
Comsat Road (Private Road; Public Access)	1	1,200'	2-Lane, Delineated, Paved	20'	>20'

Table 3.1: Comsat Road Description

3.2.2 Comsat Road - Private Access

Comsat Road continues from the Intelsat property line to the project property. It consists of 11,730' of varying road sections as depicted in Figure 2 and described in Table 3.2 below. There are no street lights along the road.

Road	Section	Length	Description	Paved/Travel Width	Clear Width
Comsat Road (Private Road; Private Access – Multiple Users)	2	1,500'	2-Lane, Partially Delineated, Paved	20'	>20'
	3	1,450'	1-Lane, Paved, Stop Control at Both Ends	12'	16'-17' Guard Rail to Wall
	4	2,210'	2-Lane, Delineated, Paved, 575' of Reversed Lanes	19'	>20'
	5	2,750'	1-Lane, Paved	12'	19' Fence Post to Fence Post
	6	3,820'	1-Lane, Gravel Along Wheel Path	9'-10'	19' Fence Post to Fence Post

Table 3.2: Comsat Road Description

Section 2 extends approximately 1,500' from the Intelsat property line to a traffic barrier bar and stop light (red and green only). Controlled access is provided through a keypad activated, electronic, double-swing gate that is located 600' within the property. Pavement appeared to be in fair condition with some raveling observed. Signage consisted of "No Trespassing" and "Stop Here on Red" signs at the end of Section 2. There is an existing asphalt concrete curb on the Makai side of the road and an existing gutter along the Mauka side of the road at the base of a steep cliff. The existing road is cut into the side of the cliff face, which also results in a steep drop off on the Makai side of the road. The existing curb in this segment is the only barrier observed along the downhill edge of the road except along a 400LF segment where an 8' chain link, security fence was observed along the outside edge of curb. Based on visual observation of the roadway, there do not appear to be any horizontal or vertical geometric deficiencies on this segment.

Section 3 is a narrow section of road that further ascends the cliff face up to the ridge on which Intelsat's facilities are located. Due to the mountainous terrain, only a single lane road could be cut into the face of the cliff. As such, stop control is provided at both ends with gate arms and traffic lights (red and green only). Short two-lane to single-lane transitions occur at each end of the segment. The uphill transition is located at the dog leg that turns up to Intelsat, likely positioned to allow line of sight downhill along this segment of road. Pavement appeared to be in fair condition with some raveling and patching observed. Signage was limited to "Slow" signs along this section. There is an existing asphalt curb and a post and cable barrier on the Makai side of the road and an existing concrete ditch on the Mauka side of the road at the base of the cliff. In some areas, the barrier posts appeared to have been previously impacted by vehicles and were leaning over the drop off in the Makai direction. The damaged barrier posts are a safety concern that should be addressed. Based on visual observation of the roadway, there do not appear to be any horizontal or vertical deficiencies on this segment.

Section 4 is a standard, two-lane pavement section that continues from the upper traffic barrier and signal to an electronic swing gate just past the Intelsat facility. The lower portion of this section, just after the

stop control that separates Sections 3 and 4, consists of travel lanes that are reversed for approximately 575' (i.e., drive on left side of the road). The lane reversal appears to be necessary to allow queuing of cars at the uphill end of the one lane section and allows line of sight downhill along the one-lane segment of road. Pavement appeared to be in fair condition with some raveling and patching observed, but pavement markings are difficult to see where reflective pavement markers were not used. Signage included "Keep Left" and "Cross to Right" signs associated with lane reversal, warning signs for speed bumps, "Slow" signs and "10mph speed limit" signs. Asphalt curb on the makai side of road and gutter on the mauka side were observed. Slopes adjacent to both sides of the road were relatively steep for most of Section 4. Curb and gutter appeared to be in good condition and signs of drainage issues were not observed. Based on visual observation of the roadway, there do not appear to be any horizontal or vertical geometric deficiencies along this segment. However, the lane reversal is certainly unconventional and not consistent with a roadway standard, but does appear to serve a purpose in facilitating traffic flow and queuing of vehicles as you come around the sharp bend in the road.

Section 5 starts just after the turnoff to Intelsat where there is an existing keypad activated gate that further restricts access up to Camp Paumalu and the mauka agricultural lots. This section of road extends approximately 2,750' through existing farmland up to an existing driveway that serves the adjacent agricultural lands. The roadway is a narrow single lane paved road somewhat centered between wire fences that provide 19' clear width. The pavement appeared to be in good condition. The roadway's landscaped shoulders are overgrown and encroaches into the travel-way. There are no existing drainage systems. Signage was limited to the "10mph speed limit" sign. Based on visual observations, horizontal roadway geometry did not appear to have any deficiencies. However, one of the roadway crests does not appear to have adequate stopping sight distance.

Section 6 starts where the Section 5 pavement ends and extends up to the GSH property. This roadway is a narrow single lane, unpaved road and is only partially graveled along the existing wheel paths. The roadway is somewhat centered between wire fences that provide 19' clear width. The sides of the roadway are vegetated, and in areas that are not maintained, the vegetation encroaches into the travelway. There are no existing drainage systems and signage was not observed. During heavy rain, gravel washes out along steep portions of road and rutting occurs throughout the section. Based on visual observations, horizontal roadway geometry did not appear to have any deficiencies. However, vertically, it appears that one of the roadway crests does not provide adequate stopping sight distance.

3.2.3 Main Road and Driveways - Onsite

The onsite roads generally consist of narrow unpaved, gravel and dirt roadways. The onsite roads have been segmented into the sections described in the table below and are depicted on Figure 3. Most of the onsite roads traverse mountainous terrain to connect individual camp sites with common facilities. As such, the onsite roads generally exhibited properties typical of mountainous roads (e.g., narrow travelway, cliff on one edge, etc.) and had relatively steep slopes on both sides of the travel-way. Roads within the property generally exhibited poor drainage with ponding, severe rutting and washout of placed gravel occurring during rain events. The travel-ways appeared to have layers of gravel added along wheel paths following rain events throughout the life of the property. The more heavily travelled portions of onsite roads contain more gravel, while less traversed areas contain more dirt and grass. There are no street lights within the property and signage is mostly limited to directional signs and a faded 10-mph posted speed limit near the Ranger's house.

Onsite Road	Section	Length	Description	Travel Width	Clear Width	Available Clear Width*
7 Main Road 8	7	2,500'	Gravel/Dirt, Property Line to Ranger's House	10'-13'	16'-18'	16'-18'
	8	900'	Gravel/Dirt, Ranger's House to Bus Loop	11'	13'-15'	15'-20'
	9	1,100'	Gravel/Dirt, Bus Loop to Central Showers	9'	12'	16'
Bus Loop 11	10	270'	Grass/Gravel, Main Road to Hale Hui Lodge	>20'	>20'	>20'
	11	500'	Gravel Along Wheel Path, Hale Hui Lodge to Main Road	9'	12'	16'
Driveways to Camp Sites	12	525'	Gravel Along Wheel Path, Bus Loop to Unit 1	9'	12'	12'
	13	800'	Gravel Along Wheel Path, Main Road to Unit 2	8'-10'	10'-16'	12'-16'
	14	2,250'	Gravel Along Wheel Path, Main Road to Units 3 and 4	8'	12"	12'

^{*}Denotes clear width available with clearing of vegetation. Large trees and slopes requiring significant grading are the limiting factors for available clear width.

Table 3.3: Onsite Road Description

The Main Road (Sections 7-9) is a gravel/dirt road that extends into the property, passes Hale Hui Lodge and terminates at the Central Showers. All camp users utilize this road to enter and exit the property as well as access common facilities. Gravel was generally in poor condition with rutting, areas with little or no aggregate and patches of short grass between the wheel paths observed. Occasional tree roots were observed in the wheel paths. Existing trees were the only physical barriers observed between the roads and adjacent steep slopes, except one area where a short length of rope barrier was observed.

- Section 7 contains two bends near the Ranger's House that exhibit steep cross slopes (12%-18%) and longitudinal grades (up to 23%). This section is severely rutting, has signs of ponding and poor drainage. Gravel was recently placed at these bends to fill ruts and temporarily address a safety concern raised by a bus company that routinely accesses the site. The bends also do not provide adequate turning radii and sight distance is limited. The two bends are a safety concern that should be addressed
- Section 9 contains three bends that exhibited severe rutting, signs of ponding and poor drainage.

The Bus Loop (Sections 10 and 11) is a gravel/dirt road that branches off the main road and provides vehicular access to a loading/unloading area at Hale Hui Lodge. Vehicles also utilize this route is loop around and exit the property. The road was generally in poor condition with severe rutting, areas with little or no aggregate and poor drainage.

- The transition off the Main Road onto Section 10 consists of a right turn down an uneven slope in which the inner wheel track is significantly lower than the outer track.
- Section 10 is a path through a relatively flat field that exhibits poor drainage and does not provide delineation indicating where the vehicular travel-way is within the field.

The connection between Sections 10 and 11 exhibits severe rutting, poor drainage and does not
provide a stabilized turning radii large enough for busses.

Driveways (Sections 12-14) branch off the main road to access individual camp sites. These driveways are normally blocked with a removable post and "No Vehicles Beyond This Point" sign and are used only for maintenance of the camp sites. As such, vehicular use of these driveways is restricted to camp users and is limited to contractors and GSH staff. All lengths of the Camp Site Driveways exhibited severe rutting along wheel paths. Severe erosion was observed along ruts in longitudinal slopes. Minor ponding was observed along flat portions of the Camp Site Driveways.

3.3 Design Standards

Due to the low anticipated volume of traffic (Offsite ADT \leq 200; Onsite ADT \leq 100), remote location, portions of mountainous terrain and anticipation of a requirement for a fire department accessible access to camp facilities, the following references are the codes and standards that the existing roadways were assessed against. They are also the minimum standards for which proposed road improvements should be designed.

- Fire Code: 2012 National Fire Protection Association (NFPA) 1 Fire Code, as amended in Revised Ordinances of Honolulu Chapter 20
- AASHTO Guideline: Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT <400), dated 2001 and prepared by the American Association of State Highway and Transportation Officials (AASHTO)
- USDA Guideline: Low Volume Roads Engineering, dated July 2003 and prepared by the United States Department of Agriculture (USDA) Forest Service

The Fire Code (Reference 1) includes minimum design requirements for roadways used for emergency vehicle access. Typically, the Fire Code requires a 20-foot wide clear width with an all-weather surface comprised of asphalt or concrete pavement, that is engineered to accommodate a 72,000-pound vehicle. Alternative engineered pavement sections such as grass-pave, gravel-pave or gravel are allowed by the HFD based on site-specific conditions and design equivalence to the code (e.g., fire sprinklers, etc.). HFD also allows a reduction in the minimum roadway width due to infeasibility or hardship if design equivalence is provided and emergency vehicles can still adequately access a site or building. In addition, roadway horizontal curvature must exceed minimum radii so that emergency vehicles can safely travel down the roadway. Deviation from the Fire Code requires HFD approval of design equivalence during the building permit review process.

The AASHTO guideline (Reference 2) is applicable to existing and proposed very low-volume local roads. Within the guideline, changes to existing roadway geometrics or roadside design (e.g., existing road widths, horizontal alignment, stopping sight distance, intersection sight distance, roadside clear zones and traffic barriers) are generally recommended only where there is a documentable site-specific safety problem that can potentially be corrected. However, that does not prevent an owner from upgrading roads/driveways to comply with the AASHTO guideline.

The USDA guideline (Reference 3) is referenced by the AASHTO guideline for very low-volume local roads. It does not regulate drainage design or set a design standard, but simply provides drainage strategies that can be considered to improve drainage and protect road improvements along rural, low-volume roads.

4 Assessment Findings

Existing roadways do not appear to be designed to the referenced codes and standards, and in the existing condition are not compliant with the Fire Code, AASHTO guideline and USDA drainage guideline in many areas. Furthermore, some sections of road including the lane reversal, traffic signal and arms demonstrate unconventional approaches to roadway design but do serve a purpose given the challenging topographic constraints and limited access and use.

4.1 Fire Code

Most of the roadways are not compliant with the Fire Code except for Sections 1 and 2, which include the publicly accessible portion of Comsat Road off Kamehameha Highway. The remaining roadways, including Sections 3-14, do not provide the required 20-foot minimum clear width and/or an all-weather surface that supports a 72,000-lb vehicle.

Although portions of existing driveways are non-compliant with Fire Code access requirements, improvements are not required by the City unless triggered by the building permit process. As such, compliance with fire code access requirements will be triggered during the future permitting of master-planned buildings.

4.2 AASHTO

The AASHTO low volume road guideline is intended to provide alternative design guidance for rural, very low volume roads that provide limited access for local traffic. The guideline provides requirements for both new construction and existing roadways. The guidance regarding existing roadways includes exceptions for improvements to existing roads because the scope of required improvements to existing deficiencies typically have high costs to provide a limited increase in safety. As such, the guideline typically only requires upgrades to deficient areas when a site-specific safety problem is present along the roadway. Although GSH does not have record of accidents along offsite and onsite roadways, roadways were assessed against new construction criteria.

When assessed against the standard for new construction many, deficiencies were observed along offsite and onsite roads. Deficiencies include:

- Damaged barriers along a cliff (Section 3);
- No clear zone and barrier between travel-way and steep, adjacent slopes (Sections 3-4, 7-9);
- Reversed lane striping (Section 4).
- Inadequate sight distance along horizontal bends and crest vertical curves (Section 5-6);
- Inadequate turning radii (Section 7); and
- Uneven grading at an intersection (Section 10).

Roadside safety concerns were noted at two of the deficient areas, based on visual observation. First, the cable barrier in Section 3 appears to be damaged by a previous impact. A damaged cable barrier may not be able to withstand another impact and keep a vehicle from driving off the cliff. Second, two bends in Section 7 exhibit a steep cross slope, steep longitudinal slope and inadequate turning radii. When combined with poor soils, poor drainage and lack of a clear zone or barrier between travel-way and cliff, vehicles have increased risk of driving off the travel-way and down adjacent slopes.

To further manage and mitigate potential safety concerns, we recommend that GSH monitor and identify any safety concerns and record accidents or other traffic incidents so that measures may be taken to

improve the roadway accordingly. Especially since funding will limit what can be done to bring the existing roadways up to an acceptable standard.

There is no regulated timeline for improving non-compliant areas with no site-specific safety problems. However, if a site-specific safety problem is noted, improvements should be implemented as soon as possible.

4.3 USDA Drainage

The AASHTO guidelines do not include drainage requirements, but refer to the USDA drainage guidelines which include strategies to provide adequate drainage along very low-volume roads. The strategies do not necessarily represent what would be required for a typical urban or suburban roadway, but instead recommend some practices to manage runoff along these types of roads. Most of the roadways do not have drainage systems except for Sections 1 through 4, which at least have a gutter on one side. The remainder of the roads, both offsite and onsite, have little to no existing drainage systems and many sections appeared to have evidence of poor drainage, washout and rutting.

5 Proposed Improvements

It is important to note that all recommended improvements are intended to accommodate master planned site improvements. Based on the characterization of use in Section 2.2 of this report, some deficiencies (e.g., lane reversal, etc.) are intended to remain as-is and HFD design equivalence will be pursued to permit narrower fire access road widths than required by Fire Code. However, change in use, traffic patterns or traffic volumes beyond what was established in this report may warrant more stringent design criteria and may require additional assessment.

Less than \$500,000 of construction funds is currently available. Short term improvements are recommended based on expending available funds. Improvements that require additional funding are considered long-term.

5.1 Short-Term Recommendations

The issues identified in this report were observed along more than 3 miles of roadway. Nearly 2 miles of offsite roadway are owned by others and shared by multiple users. As such, offsite road upgrades and maintenance responsibilities should be shared by all users. However, upgrades to existing onsite roads will be the responsibility of GSH. For this reason, short-term recommendations focus primarily on onsite improvement; Although an exception is made for Section 5 & 6 because GSH currently spends money to maintain existing vegetation along those sections. Priority is placed on onsite areas where safety problems were observed, pick-up/drop-off areas and improvements that are anticipated to decrease driveway maintenance costs for GSH (e.g., placement of gravel in problem areas after storm events, etc.). Recommendations are summarized below in order of highest to lowest priority, and depicted in Figures 4 and 5. Drainage improvements shall be designed and constructed concurrent with all short-term improvements.

 Section 7 – Address deficiencies with two curves near the ranger's house by realigning to meet AASHTO horizontal geometry, re-grading to provide adequate sight distance and widening to provide a 16'-wide stabilized travel-way. Stabilization should meet HFD requirements for accommodating a 72,000-lb vehicle.

[900 LF of affected road]

- Sections 8 & 10 Regrade and stabilize intersection of Main Road and Bus loop, near Hale Hui Lodge. Install 20'-wide, all-weather surface along entire length of Section 10.
 [300 LF of affected road]
- Section 5 and 6 Remove existing brush, shrubs and trees between the existing fences.
 [6,570 LF of affected road]
- 4. Section 14 Stabilize a 20' width of road for the 250 LF portion of road that fronts the central showers and pool. Provide a fire-truck turnaround near the pool, at the main driveway terminus. [250 LF of 20' wide stabilized surface]

5.2 Long-term Recommendations

Long-term recommendations consist of improvements that support master-planned conditions which cannot be constructed with available funds. Since funding for long-term improvements may be obtained in pieces, long-term improvements were further categorized based on whether they are required as part of future permitting of master planned improvements. As future funding is obtained, improvements should be prioritized based on scheduling of camp upgrades and GSH records of safety concerns and accidents. Recommendations are summarized below and depicted in Figures 6 and 7. Drainage improvements shall be designed and constructed concurrent with all long-term improvements.

Improvements Required for Future Permitting

Section 5 – Widen existing pavement to 16' paved width, centered between the existing fences.
While widening, reconstruct the crest vertical curve to provide adequate sight distance. A HFD variance will be required in the future if GSH decides to utilize the existing 19' clear width instead of moving existing fences to accommodate the required 20' clear width.

[2,750 LF of 4-6' wide AC pavement]

Section 6 – Stabilize a 16' wide road. While widening, reconstruct the crest vertical curve to
provide adequate sight distance. A HFD variance will be required in the future if GSH decides to
utilize the existing 19' clear width instead of moving existing fences to accommodate the required
20' clear width.

[3,820 LF of 16' wide stabilized surface]

3. Sections 7, 8 & 9 – Stabilize a 16' wide road and clear vegetation as needed.

[4,500 LF of 16' wide stabilized surface]

Section 11 – Stabilize a 16' wide road.

[500 LF of 16' wide stabilized surface]

Maintenance Improvements (Not Required for Future Permitting)

Section 3 – Replace damaged cable guard.

[1,450 LF of cable guard]

2. Section 4 – Replace damaged reflectors and restripe fading pavement markings.

[700 LF of affected driveway]

3. Sections 12, 13 & 14 - Fill existing ruts with compacted gravel.

[3,575 LF of affected driveway]

6 Rough Order of Magnitude Cost Estimate

Rough construction costs for recommended improvements are summarized in Tables 6.1, 6.2 and 6.3, below. The construction costs include an allowance for drainage improvements and were generated for budgeting purposes. The cost estimates should be reassessed during design.

1 – Section 7: Grading and 16' Stabilization	\$209,000
2 – Sections 8 & 10: Grading and 20' Stabilization	\$105,000
3 – Sections 5 & 6: Clearing	\$9,000
4 – Section 14: 20' Stabilization & Fire Truck Turnaround	\$93,000
Sub-Total Sub-Total	\$416,000
GET (4.712%)	\$19,602
15% Contingency	\$62,400
Grand Total	\$498,002

Table 6.1: ROM Cost - Short Term Improvements

1 – Section 5: AC Widening	\$316,000
2 – Section 6: 16' Stabilization	\$520,000
3 - Sections 7, 8 & 9: 16' Stabilization	\$1,510,500
4 – Section 11: 16' Stabilization	\$115,000
Sub-Total	\$2,461,500
GET (4.712%)	\$115,986
15% Contingency	\$369,225
Grand Total	\$2,946,711

Table 6.2: ROM Cost - Improvements Required for Future Permitting

1 – Section 3: Cable Guard	\$108,750
2 - Section 4: Reflectors and Striping	\$7,000
3 – Sections 12, 13 & 14: Fill Ruts with Gravel	\$75,750
Sub-Total	\$191,500
GET (4.712%)	\$9,026
15% Contingency	\$28,725
Grand Total	\$229,251

Table 6.3: ROM Cost - Maintenance Improvements (Not Required for Future Permitting)

