

**SCOPE OF WORK
AND PROJECT REQUIREMENTS FOR**

**HAWAII STATE VETERANS CEMETERY (HSVC)
TREE PRUNING AND REMOVAL – Phase II**

**FOR THE:
STATE OF HAWAII, DEPARTMENT OF DEFENSE
OFFICE OF VETERANS SERVICES**

Job No.: CA-1804

April 2018

SCOPE OF WORK

A. GENERAL

1. Project Location:

Hawaii State Veterans Cemetery
45-349 Kamehameha Highway
Kaneohe, Hawaii 96744

2. The scope of this project consists of the pruning (crown reduction/crown cleaning), under the direct supervision of a demonstrably qualified International Society of Arboriculture (ISA) Certified Arborist, and removal (felling) of designated trees at the Hawaii State Veterans Cemetery (HSVC), Kaneohe, Hawaii.

a. The primary objective of this project is to mitigate potential hazards to people and property resulting from falling trees or tree parts that may be created by the subject trees .

1) The Scope-of-Work for this project is based on the assessment report prepared by Arbor Global dated September 06, 2016. A copy of the report is attached to this scope-of-work for information. (Attachment 4)

b. The location and listing of trees to be pruned and removed are shown on the following attachments:

1) Attachment 1 – Location Map.

2) Attachment 2 – Tree Location Map (by identification number).

3) Attachment 3 – Listing of Trees to be Trimmed and Removed (Tree I.D. #, Species, Approximate Height, Mitigation Measure Required (i.e. crown reduction/crown cleaning)). The following are the definitions of the terminology used in the listing:

a) Crown Reduction (CR): Removal of the outer portions of the branches and/or the top of the subject tree, to shorten the height, branch length, and end weight. Crown reduction should be conducted to reduce the subject tree crown size by approximately 25% without unreasonably damaging its health or short and long-term structural integrity. All pruning cuts must be made in conformance to the most recent version of the ANSI A300 (Part 1) Pruning Standard (2017 Revision of 2008 (R2014)) .

b) Crown Cleaning (CC): Removal of dead, diseased, broken, hanging, damaged and defective branches in the tree's crown, including removal of invasive plants and vines.

c) Felling (F): Removal of the tree by cutting the tree down to a stump. The freshly cut stump shall be treated with an herbicide solution to control and minimize re-sprouting.

c. All work shall be performed in conformance with the most recent version of the following standards:

1) American National Standards Institute (ANSI) A300 (Part 1) – Pruning Standards.

2) American National Standards Institute (ANSI) Z133 – Pruning, Trimming, Repairing, Maintaining, and Removing Trees, and Cutting Brush – Safety Requirements.

d. The Contractor shall clear and properly dispose of all underbrush that obstructs access to the trees to be pruned and removed.

- e. All work shall be performed in accordance with all applicable Federal, State, and City & County rules, laws, regulation, codes and ordinances, and current industry standards and practices.
- 3. The Contractor shall furnish all labor, materials, tools, equipment, supervision and transportation necessary to perform the work and operations in connection with the pruning and removal of designated trees as set forth within this Scope-of-Work and attachments, including the General Conditions and Special Conditions.
- 4. The Contractor is hereby notified that it shall temporarily suspend work during burial/memorial services and related activities, as directed by the Project Contact Person or Cemetery Manager. Burials occur on the average of three (3) times per day, with each burial having an approximate duration of 20-30 minutes. The Contractor will be notified of scheduled interment ceremonies one-to-two days in advance of the ceremony. The Contractor shall include the cost of work stoppages caused by interment ceremonies in the bid amount. No additional compensation will be provided for the Contractor's lack of accommodating such stoppages in their bid.

B. PROJECT REQUIREMENTS

- 1. Submittals:
 - a. The Contractor shall submit electronic PDF files of the following:
 - 1) For each proposed Qualified Arborist, their International Society of Arboriculture (ISA) Certified Arborist (CA) Certificate and listing of three (3) distinct and separate reference projects where the proposed CA has successfully conducted and/or supervised large tree pruning in conformance with industry standards and practices within the past two (2) years.
 - 2) Work Schedule.
 - 3) Herbicide manufacturer's product label and Material Safety Data Sheet.
- 2. Certified Arborist – General Requirements and Responsibilities:
 - a. The pruning of trees shall be performed under the direct supervision of an International Society of Arboriculture (ISA) Certified Arborist possessing the following minimum qualifications:
 - 1) Five (5) years of work experience as an ISA Certified Arborist.
 - a) As evidence of this experience, the Contractor shall submit one (1) electronic copy of the Certified Arborist's current and previous expired ISA certificates as an attachment to their Offer Form. The ISA certificates shall include the arborist's certification number and expiration date. The CA's certification must be current for the duration of the contract period.
 - b) Failure to submit the certificates as an attachment to the Offer Form may result in rejection of the offer.
 - 2) Listing of three (3) distinct and separate reference projects where the proposed CA has successfully conducted and/or supervised large tree pruning in conformance with industry standards and practices within the past two (2) years.
 - 3) A sound knowledge and understanding of local tree species and their growth rates, including all of the tree species to be pruned within this contract.
 - 4) Knowledge and experience in the pruning practices and maintenance of the tree species included in this contract.

- a) Pruning practices shall be in conformance to the most recent version of the ANSI A300 (Part 1) Pruning Standard, based upon the tree's predictable response to pruning cuts, and must be conducted to minimize regrowth and facilitate wound closure as documented within the three reference projects.
 - 5) Has demonstrated the ability and experience to supervise the Contractor and its employees to ensure the satisfactory completion of operations, including but not limited to, ensuring proper clearances, proper pruning practices, productivity, clean-up, and safety as documented within the three reference projects.
 - 6) Has ability and experience in the recognition, diagnosis, and examination of trees for indications of hazardous conditions such as the presence of disease, decayed trunk or cracks, presence of termites, dead or dying trees, poor structure, and other structural stability and safety conditions, necessary prior to allowing personnel to climb and/or enter trees as documented within the three reference projects.
 - a) The Certified Arborist shall report hazardous conditions that cannot be addressed by corrective pruning, along with a recommendation to mitigate the hazardous condition, to the Project Contact Person and Project Arborist for a determination on proceeding with the recommended work.
 - b. In addition, the Certified Arborist shall:
 - 1) Represent the Contractor and shall have the authority to act on behalf of the Contractor.
 - 2) Be on-site at all times when tree pruning is being performed, and shall remain within visual and voice communication range, and attentive of the cutting practices and progress of the employees performing the work at all times.
 - 3) Determine the order of trees to be pruned (including the extent to which pruning is performed), and/or removed.
 - 4) Practice best management practices in conformance with applicable arboricultural industry standards and practices.
 - 5) Maintain certification by the International Society of Arboriculture (ISA) throughout the duration of the contract period.
 - c. In the event the Certified Arborist is not present at the work site or adequately attentive during tree pruning operations, the Project Contact Person or his authorized representative, shall have the right to suspend the work. In addition, the State shall have the right to terminate the contract during any phase of the work, for the Contractor's non-compliance with the requirements of this contract. The work may resume upon approval of the Project Contact Person following the satisfactory resolution of the Contractor's non-compliant performance issues. Any losses resulting from work delays due to the Contractor's non-compliant performance shall be the sole responsibility of the Contractor.
3. Use of Premises:

The Contractor shall have full use of the work zone defined by an area that is a radius of two (2) times the height of the subject tree being pruned or removed.
 4. Work Sequence:

- a. Work shall be completed in a sequence as mutually agreed by the State and Contractor. Work should be conducted in numerical order of the trees within the designated management block, but adjustments may be made for efficiency with the approval of the Project Contact Person.
5. Contractor Working Hours:
 - a. The Hawaii State Veterans Cemetery's Office hours of operation are from 7:45 AM to 4:30 PM, Monday through Friday, excluding State Holidays. The cemetery is open to the public Monday through Sunday, from 7:45 AM to 6:00 PM, including holidays.
 - b. The Contractor's normal working hours are from 7:45 AM to 4:30 PM, Mondays through Fridays, excluding State Holidays. Night, weekend, State Holiday and overtime work is not permitted.
 6. Contractor's Work Schedule:
 - a. Submit an initial proposed work schedule to the Project Contact Person for discussion and approval at the Pre-Construction meeting. The Work Schedule shall include the following:
 - 1) Sequence of operations and identification number of the trees to be pruned and removed.
 - b. Submit updated work schedules, as necessary, throughout the project.
 7. Confirmation of trees to be pruned and removed and Changes to the Scope-of-Work:
 - a. The Contractor and Certified Arborist shall confirm the location of trees to be pruned and removed with the Project Contact Person prior to the start of on-site work.
 - b. Conditions which may require changes beyond the scope of this project shall be brought the attention of the Project Contact Person, prior to the work being performed, for a determination on proceeding with changes to the scope of work. The State shall not be responsible for changes performed by the Contractor, and the associated costs, that have not been approved in advance.
 8. Contractor's Site Access, Parking, Storage and Staging Areas:
 - a. Adhere to the General Information/Rules and Regulations of the Hawaii State Veterans Cemetery at all times. Refer to Attachment 4.
 - b. Obey all local rules and regulations governing safety, parking, traffic speed and circulation.
 - c. Keep access roads within the project site free from dirt and debris. The Contractor shall clean the project site and roadways of dirt and debris resulting from the Contractor's operations at no additional cost to the State.
 - d. Do not use parking stalls in regularly designated parking zones within the HSVC. Unauthorized vehicles parking in marked stalls and in areas outside of the designated project area will be subject to towing at the Contractor's expense.
 - 1) The Contractor shall coordinate parking, storage and staging areas with the Project Contact Person prior to the start of on-site work.
 - e. Operate machinery and equipment with discretion and with minimum interference to driveways and walkways. The Contractor shall maintain full responsibility for equipment, machinery, supplies, and materials left on the site. The State shall not be liable for injury, losses or damages incurred by the Contractor.

9. Safety, Barricades, Signs and Lighting:

- a. The Contractor shall provide, erect and maintain safety devices, lights, signs, barricades, etc., constructed of appropriate material, around the work area, roads, driveways, and walkways to protect the public and visitors to the HSVC. Acceptable devices include, but are not limited to the following:
 - 1) 4-foot high plastic orange safety mesh fencing.
 - 2) 4-foot high plastic orange bollards with caution tape and warning signs.
- b. To ensure the protection and safety of the public and visitors to the HSVC, adjust or extend the barricades, signs, etc. as directed by the Project Contact Person at no additional cost to the State.
- c. The Contractor shall perform the work in strict accordance with Occupational Safety and Health Act (OSHA) requirements.

10. Noise and Dust Control:

- a. Noise, dust and other disrupting activities resulting from the tree pruning and removal operations are detrimental to the conduct of activities at the HSVC and adjacent commercial and residential properties. Therefore, the Contractor shall monitor its activities and exercise precautions whenever practical when using equipment and machinery to keep noise and dust levels to a minimum.
- b. To reduce loud disruptive noise levels, ensure mufflers and other devices are provided in good working condition and in conformance with the manufacturer's operation manual at all times on equipment, internal combustion engines, and compressors.
- c. The use of radios or stereos is strictly prohibited.

11. Tree Removal:

- a. Large tree stumps (> 8" diameter) shall be cut as low as practical, not exceeding 1-foot in height above ground level. Small tree stumps (<8" diameter) shall be cut parallel to slope and as low as practical, not exceeding 3-inches in height above ground level. Stumps may be left higher if they are being used to secure large logs from rolling or otherwise moving from their established disposal site. In these instances, stumps shall be cut as low as practical to secure the log, but not higher than the diameter of the log being secured.
- b. An herbicide that is demonstrated to be effective in controlling re-sprouting of the target tree species shall be applied to the freshly cut stump of all tree species that are removed.
 - 1) The herbicide shall be approved for use by the State of Hawaii, Department of Health.
 - 2) The Contractor and its employees shall be appropriately certified to use the product by the State of Hawaii, Department of Agriculture, Pesticide Division.
 - 3) The herbicides shall be used and applied in accordance with the herbicide manufacturer's label instructions, the Material Safety Data Sheet (MSDS), and in conformance with all applicable Federal, State, and City & County laws, rules, regulations and ordinances.
 - a) All herbicide containers and solutions shall be properly labeled. The Contractor shall maintain a copy of the MSDS at the job-site at all times, and shall notify its employees of the existence of hazardous chemicals in the project area.

- 4) The Contractor shall submit the manufacturer's product label and Material Safety Data Sheet for the herbicide proposed for use to the Project Contact Person for review and acceptance.

12. Disposal:

- a. Tree cuttings may be chipped, scattered and disposed within forested areas. No chips will remain in piles on-site but shall be spread evenly over the ground surface to the maximum depth of 6-inches. When chips are blown into the disposal area, no chips or debris shall be left hanging in the branches of low growing trees and shrubs or on maintained landscape features, fences or walls.
- b. Large logs may not be disposed within the forested areas and shall be removed from the site daily for recycling disposal.
 - 1) Stockpiling of large tree trunks and large branches on-site for short durations of time shall be coordinated with the Project Contract Person.
 - 2) The stockpiling of tree cuttings, underbrush, and other green waste (including excess chipping waste), and debris on site, that is designated for removal from the site, shall not be permitted.
- c. Tree cuttings, underbrush, green waste and debris shall be transported in a manner that will prevent spillage.
- d. Provide documentation (e.g. waste manifest and receipts) of disposal at the recycling/processing facility licensed to accept the tree cuttings and debris, or letter from the landowner where tree cuttings, underbrush, green waste and debris will be disposed, attesting that there is an agreement with the Contractor to dispose of tree cuttings and debris on their property.
- e. Use of the Hawaii State Veterans Cemetery waste receptacles for cutting debris disposal is expressly prohibited.

13. Protection and Restoration of Existing Work/Conditions:

- a. Tree branches shall be cut and lowered in a manner that will prevent the branches from falling and damaging existing lawns, plantings, graves, pavement, buildings, vehicles, and other existing items.
- f. Take precautions as necessary (e.g. laying of plywood sheathing to distribute weight) to prevent rutting of cemetery turf by vehicles.
- b. Damage caused by the Contractor's operations, including damages to ground and lawn areas disturbed and damaged by pruning and removal work, shall be restored to the original pre-existing condition to the satisfaction of the Project Contact Person at no additional cost to the State.
- c. Immediately contain and clean-up the release or spill of hazardous materials (e.g. vehicle and equipment oil and fluids) in conformance with Hazardous Waste containment and clean-up requirements and immediately report the incident to the Project Contact Person.

- d. Implement storm water pollution control and prevention measures (e.g. best management practices) to prevent run-off of construction debris, sediment-laden water, and other pollutants from leaving the construction area and/or entering streams and storm drainage systems.
- e. All garbage (cans, paper, etc.) generated by Contractor crews must be removed from the work site and properly disposed at the end of each day.
- f. The worksite shall be left in a condition at least as clean and orderly as when the crew arrived on the site.

14. Unsatisfactory Work - The Contractor is solely responsible to ensure that all work is satisfactorily complete and performed in conformance with this contract including, but not limited to, work quality and scheduled work completion dates. Work will be determined unsatisfactory if any parts of the Contractor's work or operations are not in conformance with the contract, including this document, at any time within the contract period.

Work that is determined to be unsatisfactory according to the requirements of this contract, shall be corrected by the Contractor within fifteen (15) working days of notification by the Project Contact Person unless such conditions are determined to be imminent hazards to persons or property that cannot be deferred. In the case of imminent hazards, corrective work must be performed within the reduced time period specified by the Project Contact Person.

Correction of unsatisfactory work shall be at the Contractor's sole expense. In the event that the Contractor is unable to complete identified corrective work within fifteen (15) working days or, in the case of imminent hazards, shorter designated period, the State reserves the right, at its sole discretion, to assign the work to an alternate Contractor and bill all costs to the Contractor.

15. Sanitation:

- a. The Contractor will be allowed use of the restroom facilities at the HSVC as long as this privilege is not abused. An example of abuse is the lavatories are found soiled with dirt and debris, etc. Frequently soiled fixtures and/or facilities will be cause to terminate the allowed use of the facilities, and the Contractor will be responsible to find or provide sanitary facilities outside of the HSVC, at no additional cost to the State.

16. Contractor Attire and Conduct:

- a. Proper attire (in good taste) and personal protective equipment as applicable and in conformance with the most current version of the ANSI Z133 shall be worn at all times.
- b. The Contractor and its employees shall wear shirts identifying the Contractor's company and shall also maintain photo identification on their person at all times.
- c. The Contractor and its employees are cautioned to conduct themselves in keeping with the dignity and sacredness of the cemetery, and shall refrain from any behavior, language or activity that is unbecoming and disrespectful to the final resting place of our Nation's heroes and loved ones. The Contractor shall remove employees exhibiting unbecoming or disrespectful behavior from the project site at the request of the Project Contact Person.

17. Drug-Free System: Comply with the ban on smoking and other use of tobacco products, alcoholic beverages and other illegal substances at all times.
18. Work under Other Contracts:
 - 1) The State may execute other separate contracts for certain work at the project site what was not known at the time Offer were submitted.
 - a. Cooperate fully with separate Contractors so work on those contracts may be carried out smoothly, without interfering with or delaying the work under this contract.