STATEMENT OF WORK

RAISE/LOWER, REALIGN, RESET, BACKFILL, AND CLEAN UPRIGHT GRANITE HEADSTONES
HOUSTON NATIONAL CEMETERY

10410 Veterans Memorial Dr.
Houston, Texas 77038

A. SCOPE:

The Contractor shall furnish all labor, material, equipment, and supervision necessary or incidental to remove, raise, realign, reset, and clean 700 upright granite headstones in the following sections at Houston National Cemetery in accordance with specifications, drawings, and per applicable standards and requirements:

- S1 – 303 Headstones
- U – 81 Headstones
- U1 – 105 Headstones
- U2- 138 Headstones
- X - 73 Headstones

B. SUMMARY OF WORK:

i. The Contractor shall **raise/lower, realign, reset, backfill, and clean upright headstones** at the Cemetery in a manner that will meet or exceed the requirements to present a clean, neat, professional, and aesthetic headstone appearance and in accordance with Contract Specifications. Services include, but are not limited to work consisting of extracting, resetting, surveying, aligning, backfilling, compacting, and cleaning of upright headstones, as well as inventorying and ensuring accurate placement on each gravesite.

ii. The Contractor shall restore cemetery features disturbed or removed as a result of performing new work, as well as, repair, replace, or reinstall any damaged cemetery property, such that at the end of the day the condition is as good as before commencement of work. Scheduling of services shall be coordinated with the Contracting Officer's Representative (COR) to avoid disruption of ongoing cemetery operations.

C. PHASING AND WORK SEQUENCING

i. Contract work shall be accomplished in a sequential manner, with the realignment work limited to no more than three (3) rows of headstones at any given time in order to minimize overall disruption to the cemetery. Work cannot begin in subsequent burial rows until such time that work has been completed in prior burial rows. Submit proposed project work schedule sequence for COR review and approval prior to start of project. (See Section C, "GENERAL CONDITIONS", N. SUBMITTALS, "Work plan/Staffing plan".)

ii. Cleaning of the headstones shall begin after all other work has been accepted and completed.

D. PERIOD OF PERFORMANCE: The Period of Performance is 120 calendar days from Notice to Proceed (NTP).

E. WORK HOURS: Work may be performed between the hours of 7:30 a.m. to 4:30 p.m. local time, Monday through Friday during normal Federal workdays except observed Federal Holidays or unless otherwise directed by the COR. When situations prohibit work completion during the normal work week, (such as weather-related or contractor-caused delays), then the Contractor may request in writing to the COR at least 5 workdays in advance to work on weekends, as needed, in order to meet the requirements of performance within the period specified. The Government will not compensate the Contractor for any alternate work schedules needed for the Contractor to complete all contract work within the specified period of performance. All activities must be coordinated with cemetery operations to avoid conflicts with funerals and ceremonies.

F. PROJECT REQUIREMENTS:

i. The Contractor shall be responsible for full execution of the scope of work described herein.

ii. In accordance with the contract requirements, the Contractor shall be responsible for:

1) Upright Headstone Setting, Raising and Realignment in accordance with the contract requirements – 700 headstones
   a) All headstones will be set at 25 inches above finish grade (to include the installed sod pad).

2) Cleaning Upright Headstones – 700 headstones

iii. The Contractor shall be responsible for:

1) Layout of the work and for all measurements in connection with the layout;

2) Locating and utilizing existing burial section grid monumentation for all headstone row layout work;

3) Executing the work to the lines and grades needed to accomplish the work and to ensure that headstones are correctly and accurately located on their associated gravesites;

4) Cleanup within the project area(s);

5) Maintaining a safe presentable working environment for Contractor, cemetery staff, and the general public;

6) Preventing any disruption to the cemetery operations, including funerals, visitor privacy, internal traffic, and utilities;

7) Preserving the environment;

8) Preserving existing cemetery features (lawns, paving, roads, stones, and markers);

9) Restoring cemetery features disturbed or removed as a result of performing new work;

10) Timely submission of required reports and documentation.

G. SPECIFIC REQUIREMENTS FOR RAISE AND REALIGNMENT PROJECTS: To ensure the accuracy of upright headstone placement during raise and realignment (R&R) activities, the following procedures shall be followed by the Contractor, cemetery personnel, and COR before the Raise and Realignment (R&R) process begins:

i. The Continental District (NCA-CD) office will provide each Cemetery with the correct Gravesite Layout Map(s) prior to beginning the R&R project. The COR shall conduct an initial gravesite verification survey prior to the R&R of any headstone in the Cemetery. The COR will obtain a copy of the Burial Register Report from the Burial Operation Support System (BOSS) and current gravesite layout map(s) obtained from the NCA-CD for the verification survey. The Burial Register Report and gravesite layout map(s) will be used to verify the section, row, grave number, first and last name of each decedent and the condition of the headstone included in the Scope of Work. All inconsistencies will be researched, discussed, and resolved with the NCA-CD Executive Director prior to the R&R of any headstone. Upon completion of the verification survey and corrective actions as necessary, the COR shall certify the survey by signing the Headstone Raise & Realign Verification Survey sheet (see **Attachment 4**). A copy of the signed Headstone Raise & Realign Verification Survey sheet shall be forwarded to the Contracting Officer (CO) which will be incorporated into the contract files and provided to the Contractor prior to R&R; a copy of the survey will be maintained by the Cemetery. Additional copies of the survey will be retained by the COR for the official contract files. The CO will give the approval to begin R&R process.

ii. The Contractor shall complete and submit DAILY, prior to the completion of each workday during which R&R activities take place, a Daily Headstone Raise & Realign Verification Survey for all headstones and markers raised & realigned (see **Attachment 5**). The COR

will verify the accuracy of the placement of headstones on the correct gravesite using the same Burial Register Report and gravesite layout map(s) that were used for the initial headstone verification survey. DAILY, the COR will inform the Contractor Supervisor of all identified inconsistencies and ensure corrective actions are completed that day. The Daily Headstone Raise & Realign Verification Survey will be maintained by the COR for certifying payments for completed work, tracking project progress and other administrative needs.

iii. When site conditions are restrictive and it is not possible to safely operate equipment while keeping the headstones on the gravesite, the Contractor shall prepare these sites by hand. At no time may headstones be removed from the gravesites. Motorized equipment shall not be operated within 6 inches of any headstones.

iv. The Contractor is responsible to protect headstones during the raise and realignment process from damage or being discolored from contact with dirt, soil or other contaminants.

v. Headstones shall not be physically removed from the gravesite during the raise and realignment.

H. LAYOUT OF WORK:

i. The Contractor shall lay out the work and shall be responsible for all measurements in connection with the layout. Where burial section grid monumentation exists, it shall be utilized for all headstone row layout work, and contractor shall coordinate all associated field layout dimensions with COR prior to start of work. The Contractor shall furnish all stakes, templates, platforms, equipment, tools, materials, and labor required to layout any part of the work. The Contractor shall execute the work to the lines and grades needed to accomplish the work and to ensure that headstones are correctly and accurately located on their associated gravesites. The Contractor shall maintain and preserve all temporary and permanent stakes and other marks until authorized by the COR to remove them. If such marks are destroyed by the Contractor or through Contractor's negligence before their removal is authorized, the Contracting Officer may direct the Contractor to reinstall or replace them at the Contractor's expense.

ii. A registered professional land surveyor or registered civil engineer whose services are retained and paid for by the Contractor shall be used for layout control of work and to restore any grave section corner monuments that may be disturbed as a result of the Contractor's performance of the contract work. (See Section C, "GENERAL CONDITIONS", N. SUBMITTALS, "Surveyor's license")

I. STANDARDS OF EMPLOYEE CONDUCT:

Contractor personnel shall be required to adhere to the following standards of dress and conduct, as briefly mentioned here, while performing work in the National Cemetery. These standards and regulations are enforceable under Title 38, U.S.C., Part I, Chapter 9, Section 5901. The Contractor shall be responsible to ensure that Contractor employees coming to the work site will receive complete information on safety, environmental protection, and fire safety; project work schedule, rules pertaining to employee requirements and conduct, general parameter job related issues; disaster procedures; and all technical requirements and work procedures of the contract.

i. Clothing shall be presentable and suitable to the work while maintaining proper appearance and decorum indicative for a National Shrine. Uniform shirts and hats are preferred. Clothing shall be clean and cleanliness and personal hygiene are imperative. Tank tops as outer garments are prohibited. Protective/safety clothing and shoes shall meet or exceed OSHA and state requirements.

ii. Behavior and language must be appropriate, reverent, and respectful at all times.

iii. Eating and drinking (except water) is prohibited in the work areas and within sight of a committal shelter during a service.

iv. Use of intoxicating beverages, any tobacco products, and illegal drugs on the Cemetery premises is strictly prohibited.

v. Contractor personnel shall not lean, sit, or stand on or against headstones or monuments. Nor can they drive over them. Contractor personnel should use tools approved by the COR, such as shovels, pry bars or pinch bars to lift headstones out of the ground; pickaxes are not an acceptable tool.

vi. No tools, equipment or other items will be placed or leaned on headstones or monuments.

vii. Employee Identification: The Contractor's employees shall wear visible identification at all times while on the premises of the Cemetery.

viii. The Contractor shall discuss the guidance in this paragraph and in **Attachment 7** with their employees and all subcontractors. Any doubts as to proper procedures shall be brought to the attention of the COR, Cemetery Director, and/or CO for guidance or resolution. **The Contractor's on-site superintendent shall sign a Statement of Compliance (Attachment 6)**; the Contractor shall deliver the signed statement to the COR before work may begin.

J. EMPLOYEE REQUIREMENTS

i. The Contractor shall be responsible to ensure Contractor employees providing work on this contract are fully trained and completely competent to perform the required work.

ii. Labor Force and Equipment: The Contractor shall be aware of the intensive labor and equipment requirements needed to meet contract specifications. Contractor shall be responsible to provide all labor and equipment as necessary to meet deadlines. The Contractor will provide all necessary resources to complete the efforts assigned under the scope of this contract.

iii. Contractor personnel are subject to rules of the Cemetery applicable to their conduct.

iv. Employee Listing: The Contractor shall maintain and provide the COR a current list of all employees on site including subcontractor personnel. The list shall include the employee's name, job title, and driver's license number.

K. PARKING AND VA REGULATIONS:

Contractor employees may park privately owned vehicles in the area designated for parking by the COR. It is the responsibility of the Contractor to ensure his employees park in the appropriate designated parking areas. The Cemetery will not validate or make reimbursement for parking violations of the Contractor's employees under any conditions. Smoking is prohibited inside any buildings at the Cemetery. Possession of weapons is prohibited. Enclosed containers, including tool kits, shall be subject to search. Violations of VA regulations may result in citation/summons answerable in the United States (Federal) District Court, or other appropriate jurisdiction/agency.

L. USE OF CEMETERY FACILITIES:

i. The Government shall not be responsible for any loss, damage, or theft of Contractor items. Contractor shall be responsible for acceptable standards of housekeeping and custodial maintenance of cemetery facilities used by Contractor's employees.

ii. The Government will not furnish a storage building at the Cemetery site for use by the Contractor to store supplies and equipment. However, the Government will provide an area designated for the Contractor's use. The Contractor can establish facilities to include but not limited to office site, covered storage, portable toilet facilities etc. on or in the designated area after such facilities are approved by the COR and Contracting Officer. All utilities to this area are the responsibility of the Contractor. The Government will not be responsible for any damage to or loss of the Contractor's equipment and supplies stored on the Government's premises. The Contractor shall be responsible for maintaining fire extinguishers and other safety equipment.

iii. The Contractor will be responsible for safely storing any chemicals, pesticides, herbicides, cleaning solutions, etc. in accordance with manufacturers recommendations. An SDS (Safety Data Sheet) is required for all chemicals, pesticides, herbicides and cleaning solutions.

iv. Electricity and phone service will NOT be furnished by the Government for the Contractor's work area.

M. INSPECTION AND CLEANING OF CEMETERY FACILITIES:

i. The Contractor shall perform daily worksite inspections. During these inspections the appearance of the Cemetery will be observed, and any deficiencies from the contract shall be noted. Deficiencies shall be corrected as soon as practicable. Items that need correcting outside the scope of the contract will be reported to the COR or his/her representative.

ii. The Contractor will be required to sign and submit inspection reports and work accomplished to the COR at the end of each week for concurrence and approval. The COR is located at Fort Sam Houston National Cemetery. The inspection forms will be provided to the Contractor. (See "Work Summary and Progress Report", Attachment 2). (This is separate than the Daily Headstone Verification that the Cemetery accomplishes in Attachment 5 for accountability requirements).

N. INSTALLATION DURING CEMETERY FUNCTIONS: Contractor personnel shall not operate motorized equipment or conduct other commercial activities within the designated area during interment services. The COR will identify the designated area. The COR shall furnish the Contractor with a schedule of all interments and/or ceremonies no later than the close of business of the day prior to the scheduled interment, and a minimum of three (3) days before any ceremonial events.

O. CONTRACTOR RESPONSE TIMES: In the event of an unsafe condition discoverable by the Government and caused by the Contractor, the Contractor shall abide by the following response times:

i. During Normal Working Hours: The Contractor shall be prepared to shift workers and work areas as necessary to safeguard the cemetery and its visitors and restore the work area(s) to a safe condition. The Contractor shall respond to all normal working hours' requests made by the COR within 30 minutes of the initial notification.

P. PERFORMANCE EVALUATION MEETING:

i. The issuance of a Contract Discrepancy Report (CDR), found at Attachment 3, may be cause for the scheduling of a meeting among the Contractor, Contracting Officer, and the

COR. A mutual effort will be made to resolve all problems identified. The Government will prepare written minutes of the meeting. The Contractor, Contracting Officer, and the COR will sign minutes of the meeting(s).

ii. Should the Contractor not concur with the minutes, they will so state their objections in writing to the Contracting Officer, within ten calendar days, and also explain the reasons for non-concurrence. The Contracting Officer will review and consider the reasons submitted for the Contractor's non-concurrence and make a decision to revise or uphold the comments as written. The Contracting Officer will notify the Contractor of the decision in writing within ten calendar days of submission of any objections.

Q. CONTRACTOR'S QUALITY CONTROL PLAN (QCP): The Contractor shall establish and maintain a complete QCP to assure the requirements of this contract are provided as specified. This QCP will be forwarded to the Contracting Officer after Award and prior to Notice to Proceed and may be revised as necessary during the life of the contract, with concurrence of the COR and Contracting Officer. The Contracting Officer will review the QCP and list any needed clarifications, and return to Contractor for response, if necessary. The Contractor's QCP shall include the following or have incorporated into during performance of contract, at a minimum:

i. An inspection plan covering all services required by this contract. The inspection plan must specify the areas to be inspected on either a scheduled or unscheduled basis, how often inspections will be accomplished and documented, and the title of the individual(s) who will perform the inspections.

ii. On-site records of all inspections conducted by the Contractor noting necessary corrective action taken. The Government reserves the right to request copies of any and/or each inspection.

iii. Incorporation of either active or established internal policy and procedures for updating equipment and procedures that may affect performance of contract.

iv. The methods for identifying and preventing deficiencies in the quality of service performed, before the level of performance becomes unacceptable; and the organizational functions, intermediate supervisory responsibilities, and overall management responsibilities for ensuring total acceptable performance.

v. On-site records identifying the character, physical capabilities, certifications and ongoing training of each employee performing services under this contract.

vi. A log to account for all requests for immediate service. The log shall indicate the date and time of services, and description of results and completion of these services.

vii. On-site records of any complaints or problems, with procedures taken to allow for corrections and/or elimination before effects caused interruption of performance of contract.

R. QUALITY ASSURANCE:

i. The COR will evaluate the Contractor's performance. The COR will evaluate the Contractor's performance through on-site inspections and receipt of complaints from cemetery personnel.

ii. The COR may inspect each task as completed or increase the number of quality assurance inspections if called for by repeated failures discovered during inspections or repeated customer complaints. Likewise, the COR may decrease the number of quality assurance inspections if performance dictates.

S. FAIR ACCEPTANCE: The work shall be deemed acceptable when the Contractor clearly provides evidence compliance, without exception, in meeting contract requirements. The Government has the right to either reject or to require correction when the work is not in conformity with contract requirements. Acceptance (in part or whole) shall be in writing.

i. Raise and Realign Headstones: Raised and realigned headstones (for the section the Contractor has been given the authorization to work) are acceptable when all the headstones are plumb; headstone heights are in line vertically, set at the proper height necessary to provide a smooth flowing transition between all headstones in all directions; and all headstones are in a line laterally in both directions per the Specification Section 10 80 00. Only entire burial sections will be considered for acceptance.

ii. Clean Headstones: Headstones are acceptable when the headstones have been cleaned per Specification Section 04 01 00. Only entire burial sections will be considered for acceptance.

T. ACTIONS:

i. Normally, the COR will verbally advise or give a written inspection report to the Contractor of discrepancies the first time they occur and ask the Contractor to correct the problem. A notation will be made on the COR checklist of the date and the time the deficiency was discovered and the date and time the Contractor was notified.

ii. When the Contractor is not meeting the acceptable limits of satisfactory performance, a CDR will be issued to the Contractor at the discretion of the CO. The seriousness of the failures should govern whether to issue a CDR or as soon as the limits of satisfactory performance are exceeded.

U. WARRANTY: The Contractor is to warranty all work for a period of one (1) year after final acceptance by the Government. Workmanship that does not meet the specified requirements (including specified tolerance requirements) before the end of this warranty period is to be reworked, adjusted, and corrected by Contractor at no additional cost to the Government. Work performed under the warranty shall be corrected within ten (10) workdays from receipt of notification or as directed by the COR.

V. UNFORESEEN DISCOVERY OF CULTURAL RESOURCES: When the Contractor or any of the Contractor's employees, prior to, or during the service work, are advised of or discover any possible archeological, historical and/or cultural resources, the Contractor shall immediately notify the COR verbally, and then with a written follow up.

W. EXPOSURE OR ACCIDENTAL DISCOVERY OF REMAINS: Should any on-site activity, incident, emergency, or disaster result in exposure and/or damage to any remains, container for remains (i.e., casket or urn), or outer burial container, the Contractor shall IMMEDIATELY notify the Cemetery Director, the COR and/or the Contracting Officer for guidance; and stop any further work and await permission to proceed.

SECTION C
GENERAL CONDITIONS

A. WORK ENVIRONMENT AND WEATHER CONDITIONS

i. All work under this service Contract will be performed primarily out-of-doors and personnel performing these services will be exposed to wind, heat, sun, cold, dampness, frost, fog, rain, and snow. These conditions, may, at times, be extreme. The Contractor shall take all necessary precautions to protect his/her employees from the elements to the maximum practicable extent. If weather conditions are such the work performed on that day may cause more damage to the Cemetery grounds than good, the COR will recommend to the Contractor to cease work until conditions improve and will notify the CO about the recommendation. If the Contractor decides to continue work, they will be responsible for any rework or repairs necessary as a result.

ii. Due to the sensitive mission of the Cemetery, the work could occasionally involve contact with and/or exposure to grieving individuals. Contractor personnel shall exercise and exhibit absolute decorum, composure and stability at all times and refer such individuals to Cemetery staff.

B. SAFETY AND ENVIRONMENTAL PROTECTION

i. The Contractor shall be responsible to ensure all work shall be done in a manner that safeguards all VA visitors, employees, and public. The Contractor shall be solely responsible for any and all actions initiated and/or completed by his/her employees. Furthermore, the Contractor and his/her employees shall have a clear understanding of, and be sensitive to, such environmental issues as ground water contamination, wetlands, etc., and be consistent and fully compliant with all applicable Federal, State, County and City laws, ordinances, Right-to-Know laws, EPA guidelines, and regulations.

ii. Matters related to safety, and any actions of the Contractor shall meet all safety requirements, Department of Veterans Affairs, OSHA, and the State. It is incumbent upon the Contractor to be familiar with these requirements.

iii. Adequate warning devices, barricades, guards, flagmen or other necessary precautions shall be provided by the Contractor at all work sites to eliminate hazards and for the protection, safety, and warning of all public visitors, pedestrians, cemetery employees, and vehicular traffic within the area. All open and unattended holes in the ground must be covered with plywood and/or barricaded for pedestrian safety.

iv. Spill Prevention, Containment, and Clean-up: The Contractor shall contain, clean up, and report all spills on Government property in a manner that complies with all applicable

Federal, State, and Local laws and regulations or otherwise stated herein, and the installation spill control plan at no cost to the Government.

v. Dust Control: Keep dust down at all times, including during nonworking periods. Sprinkle or treat, with dust suppressants, the soil at the site, haul roads, and other areas disturbed by operations. Dry power brooming will not be permitted. Instead, use vacuuming, wet mopping, wet sweeping, or wet power brooming.

C. FIRE SAFETY

i. Applicable Publications: Publications listed below form part of this Article to extent referenced. Publications are referenced in text by basic designations only.

1. National Fire Protection Association (NFPA):

a) Standard for Portable Fire Extinguishers

b) Flammable and Combustible Liquids Code

2. Occupational Safety and Health Administration (OSHA)

a) 29 CFR 1926, Safety and Health Regulations for Construction

ii. Fire Safety Plan: Establish and maintain a fire protection program in accordance with 29 CFR 1926.

iii. Means of Egress: Do not block exits for occupied buildings, including paths from exits to roads. Site and Building Access: Maintain free and unobstructed access to facility emergency services and for fire, police and other emergency response forces in accordance with NFPA 241.

iv. Situate temporary facilities, such as trailers, storage sheds, and dumpsters, away from existing buildings and new construction by distances in accordance with NFPA 241. For small facilities with less than 6 m (20 feet) exposing overall length, separate by 3m (10 feet).

v. Fire Extinguishers: Provide and maintain extinguishers in construction areas and temporary storage areas in accordance with 29 CFR 1926, NFPA 241 and NFPA 10.

vi. Flammable and Combustible Liquids: Store, dispense and use liquids in accordance with 29 CFR 1926, NFPA 241 and NFPA 30.

vii. Smoking: Smoking is prohibited except in designated smoking rest areas approved by the COR.

D. OPERATIONS AND STORAGE AREAS

i. The Contractor will be provided a working space and space available for storing materials. The location is to be where approved by the COR or where shown on drawings as the "Contractor Staging Area". It is understood the VA will not be held responsible for any damage to the Contractor's equipment, materials, supplies or the like which may result from vandalism, theft etc. while on site. Contractor shall base operations out of this staging area, using it for materials and equipment storage, administration, employee toilets, trash dumpster area, employee parking, employee lunch/break area, etc.

ii. "Contractor Staging Area" fencing: Before work operations begin, Contractor shall provide a chain link fence, six (6) feet minimum height, around the "Contractor Staging Area". Provide gates as required for access with necessary hardware, including hasps and padlocks. Fasten fence fabric to terminal posts with tension bands and to line posts and top and bottom rails with tie wires spaced at maximum 15 inches. Bottom of fences shall extend to one inch above grade. After completion of project work, Contractor shall remove fencing and restore area back to original condition.

iii. "Contractor Staging Area" facilities: Temporary buildings (e.g., storage sheds, shops, offices) may be erected by the Contractor within the approved "Contractor Staging Area" with the approval of the COR or Contracting Officer and shall be built with labor and materials furnished by the Contractor without expense to the Government. The temporary buildings shall remain the property of the Contractor and shall be removed by the Contractor at its expense upon completion of the work.

iv. The Contractor shall confine all operations (including storage of materials) on Government premises to areas authorized or approved by the COR or Contracting Officer. Do not store materials and equipment in other than approved areas. The Contractor shall hold and save the Government, its officers and agents, free and harmless from liability of any nature occasioned by the Contractor's performance.

v. The Contractor shall, under regulations prescribed by the Contracting Officer or COR, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by the COR or Contracting Officer. When materials are transported in prosecuting the work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any Federal, State, or local law or regulation. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. The Contractor shall repair or pay for the repair of any damaged curbs, sidewalks, or roads.

vi. Execute work in such a manner as to interfere as little as possible with work being done by others. To minimize contract activity interference with flow of cemetery traffic, keep roads, walks and entrances to grounds, parking and occupied areas of buildings clear of

materials, debris and standing equipment/vehicles at all times. At least one lane must be open to traffic at all times.

vii. Coordination of work with COR or authorized designee: The burial activities at a National Cemetery will take precedence over contract activities. The Contractor shall cooperate and coordinate with the COR or authorized designee, in arranging schedule to cause the least possible interference with cemetery activities in actual burial areas. Work noise during the interment services shall not disturb the service. Trucks and workmen shall not pass through the service area during this period.

E. TEMPORARY TOILETS

The contractor shall provide portable chemical toilets for use by workmen as necessary to comply with applicable OSHA requirements. These portable toilet facilities shall be kept clean and free of excessive odors, insects, etc. Locate portable toilet facilities in the COR approved "Contractor Staging Area" only. It will not be permissible to locate portable toilet facilities in any other locations throughout the Cemetery. Use of the permanent cemetery toilet facilities by workmen is strictly prohibited throughout the duration of this contract. All connections and appliances connected therewith shall be removed prior to completion of contract, and premises left perfectly clean.

F. DISPOSAL AND RETENTION

i. Contractors shall be responsible for cleaning cemetery structures, headstones, monuments, and roadways that are soiled or stained as a result of Contractor's performance. The Contractor shall wash-down with water all soiled or stained structures headstones, and monuments at the end of each workday. Roadways shall be cleaned with a street sweeper each day as needed to keep the existing roads free from dirt and mud resulting from Contractor operations. No hazardous chemicals are to be used at any time on Government property with the exception of herbicide treatments. The Contractor shall bear all costs associated with washing and cleaning. Any such washing/cleaning shall be brought to the immediate attention of the COR prior to washing/cleaning.

ii. At the end of each day the Contractor shall remove all debris from the Cemetery site resulting from the work. The Contractor shall ensure at all times that rubbish and trash generated by the Contractor is kept clear of vehicular and pedestrian traffic throughout the site.

iii. The Government will not provide receptacle(s) for disposal of debris related to this contract. The Contractor shall provide his/her own REFUSE FACILITIES, and these shall only be located in the COR approved "Contractor Staging Area". Do not place dumpsters or refuse facilities in any other location at the Cemetery other than the approved "Contractor Staging Area". The contractor shall dispose of all debris and other waste

materials generated by his/her work at a licensed off-site landfill unless otherwise directed by the COR.

iv. The Contractor shall dispose of all hazardous waste in accordance with the Resource Conservation and Recovery Act (RCRA) and all other applicable Federal, State, and Local law and regulations. On-installation storage or disposal of hazardous waste is NOT allowed.

G. PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS

i. The Contractor shall preserve and protect all existing cemetery features, structures, equipment, and vegetation (such as lawns, paving, roads, stones, markers, trees, and shrubs) on or adjacent to the work site that are not to be removed and which do not unreasonably interfere with the work required under this contract. The Contractor shall only remove trees when specifically authorized to do so by the COR and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during contract performance, or by the careless operation of equipment, or by workmen, the Contractor shall trim those limbs or branches with a clean cut and remove and properly dispose of from the site as defined herein.

ii. The Contractor shall protect from damage all existing improvements and utilities at or near the work site and on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. The Contractor shall immediately notify the COR of any such occurrence and repair any damage to those facilities, including those that are the property of a third party, resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in performing the work. If the Contractor fails or refuses to repair the damage promptly, the Contracting Officer may have the necessary work performed and charge the cost to the Contractor.

iii. Protection of Existing Utilities: Contractor shall be responsible for damages to utilities, above and below ground.

iv. Refer to paragraphs, "Operations and Storage Areas", "Alterations", and "Restoration" for additional instructions concerning repair of damage to structures and site improvements.

H. RESTORATION

i. Damage to Government property: The Contractor (including his or her employees, subcontractors, consultants or the like) shall be responsible for repair or replacement of any contractor damaged cemetery structure, to include turf, curb, road pavement, headstones, valve boxes, grid monument control markers, trees, plant beds, etc., which are chipped, marred, damaged and/or ruined at the fault of the Contractor. The Contractor

shall bear all costs associated with replacement and reinstallation. Any such damage shall be brought to the immediate attention of the COR prior to repair, replacement, or installation.

ii. Contractor shall remove, cut, alter, replace, patch and repair existing work as necessary. Except as otherwise shown or specified, do not disturb any water, steam, gas, or electric services without prior approval of the COR or Contracting Officer. Existing work to be altered or extended and that is found to be defective in any way, shall be reported to the COR before it is disturbed. Materials and workmanship used in restoring work shall conform in type and quality to that of original construction, except as otherwise shown or specified.

iii. Upon completion of Contract, Contractor shall deliver work complete and undamaged. Existing cemetery features (such as lawns, paving, roads, and walks) disturbed or removed as a result of performing required new work, shall be patched, repaired, reinstalled, or replaced with new work, and refinished and left in as good condition as existed before commencing work. All restoration work shall be accomplished without undue delay. Scheduling of services shall be coordinated with the COR to avoid disruption of ongoing cemetery operations.

iv. At Contractor's own expense, Contractor shall immediately restore to service and repair any damage caused by Contractor's workmen/subcontractors to existing cemetery infrastructure.

v. Any grid or monumentation control markers disturbed, shall be properly reset by a licensed land surveyor at Contractor’s expense at no additional cost to the Government.

I. USE OF ROADWAYS

For hauling, the Contractor shall use only established public roads and roads on cemetery property and, when authorized by the COR, such temporary roads that are necessary in the performance of Contract work. Temporary roads shall be constructed by the Contractor at Contractor's expense. When necessary to cross curbing, sidewalks, or similar construction, they must be protected by well-constructed bridges.

J. AVAILABILITY AND USE OF UTILITY SERVICES

i. WATER: The Government shall make all reasonably required amounts of water for the purposes of headstone cleaning available to the Contractor from existing outlets and supplies and for purposes of this Contract only, as specified in the contract. The Contractor at Contractor's expense and in a workmanlike manner with the approval of the COR shall be responsible for installing and maintaining temporary connections to the cemetery water

supply at these existing "Quick Connection" (QC) locations. Contractor shall not obstruct normal traffic flow on adjacent roads while water is being obtained.

ii. In locations where cemetery water system is not readily available, the Contractor shall provide and utilize portable water tanks and/or water trucks as necessary to transport water to areas where needed in order to complete the work required by this Contract.

iii. ELECTRICITY: In case the Contractor requires electricity while in performance of this Contract, the Contractor shall provide and utilize portable generators as necessary to complete the work.

K. WORK PERFORMED BY OTHERS ON SITE

The Government may undertake or award other contracts for additional work at or near the site of work for this contract. The Contractor shall fully cooperate with any other contractors and with Government employees and shall carefully adapt scheduling and performance of work, and needing any direction, it shall be provided by the COR. The Contractor Supervisor shall be responsible for reporting to the COR any problems or questions that may arise with any other personnel on site during the period of performance of this contract. The Contractor Supervisor shall not take it upon him or herself to resolve any problems or issues with other on-site contractors or employees, but rather will leave it to the COR to resolve the issue.

L. PERMITS AND LICENSES:

The Contractor shall be responsible for obtaining all necessary and current licenses, permits, vehicular insurance and registration, Workman's Compensatory Liability Insurance, property liability insurance etc., prior to the commencement of work. The Contractor shall provide the Contracting Officer copies of these required documents with his/her proposal or as other times where the COR deems necessary during the duration of the project.

M. REPORTING AND RECORD KEEPING

i. The Contractor Supervisor shall report on a daily basis to the COR at the main office of Fort Sam Houston National Cemetery and log in. This DAILY check-in is mandatory and shall be at a time agreed upon by the COR and the Contractor Supervisor within the requirements of paragraph "b" below.

ii. The purpose of the DAILY meeting is to coordinate and establish the daily work schedule to ensure that no work is being performed at the immediate site of a scheduled interment or ceremony, and to submit the required written reports to the COR. These Daily meetings are for the Contractor Supervisor to ask questions and ensure he/she understands the off-limit areas, which may vary depending on the event. The Contractor Supervisor can thus assign tasks accordingly throughout the rest of the Cemetery so that productive use of labor and equipment is assured, and downtime is avoided. If the Contractor Supervisor fails to

re-direct employees away from an event in a timely fashion, the COR may then assist in doing so.

iii. The Contractor Supervisor or his designee shall provide the COR the following documentation:

1. The Contractor Supervisor shall provide WEEKLY and DAILY work schedules to the COR. The contractor is required to schedule all required services and is further required to comply with his schedule except for delays beyond his control. Such delays shall be coordinated through the COR. The work schedule shall include deficient work identified by contractor's quality control inspections and not yet corrected.

2. The Contractor shall submit the WEEKLY schedule every Friday by 3:00 P.M. indicating the work to be performed during the following week and the DAILY schedule shall be submitted on a daily basis by 8:00 A.M. indicating work being performed on that day.

3. The Contractor Supervisor shall provide weekly an accurate written report identifying all work that took place within the previous seven calendar days. The contractor shall document services performed, indicate the location where work was to be performed, and provide information to the COR as required.

iv. A list of scheduled ceremonies will be provided to the Contractor Supervisor the week prior to the scheduled events, and a list of scheduled funerals will be provided daily. The Contractor Supervisor shall be solely responsible for ensuring that no contract work causes any funeral, ceremony, procession or visitation to be delayed, altered, or otherwise impacted in such a way that the dignity or security of the event is compromised. The Contractor shall be solely responsible for staying abreast of all such upcoming events and when in doubt, he/she must ask the COR.

N. SUBMITTALS: The Contractor shall submit the following documents or information in accordance with the table below.

Submittal	**Frequency**	**Submittal Schedule**
Work plan/Staffing plan	Initial and as revised	Prior to Notice to Proceed
Fire safety plan	Initial and as revised	Prior to NTP
Emergency contacts	Initial and as revised	Prior to NTP
Licenses, permits, insurance on vehicles, liability, Workman's Compensation Insurance, etc.	Initial and as revised	Prior to NTP
Equipment list	Initial and as revised	7 calendar days prior to mobilization
Work schedule	Daily	Every day by 8:00 A.M.

Headstone Raise & Realign Verification Survey	Daily	By 3:00 P.M. during R&R activities
Weekly report and rework list	Weekly	Every Friday by 3:00 P.M.
Sod provider and information sheet	Initial and as revised	Prior to NTP
Sod delivery tickets and certification	As needed	Upon delivery
Gradation of crushed rock	Initial and as revised	Upon delivery
Topsoil provider and information sheet	Initial and as revised	Prior to NTP
Sod provider and information sheet	Initial and as revised	Prior to NTP
Cleaning agent(s) product data	Initial and as revised	10 days prior to use
Safety Data Sheets (See FAR Clause 52.223-3)	As needed	10 days prior to chemical use
Pre- and post-cleaning photographs	Initial and as revised	Prior and after cleaning operations
Surveyor's license	Initial and as revised	Prior to NTP
Headstone survey; new lines and grades	Initial and as revised	Prior to R&R activities
Keystone selection	Initial and as revised	Prior to R&R activities

O. SUPERVISION:

i. Contractor Supervisor: A competent and experienced English-speaking Contractor Supervisor shall be provided by the Contractor whenever work is being performed - other than trash and debris pick-up. The Contractor Supervisor must have not less than five (5) years of experience as a direct supervisor of grounds maintenance operations that included mowing, trimming, edging, and cleanup in industrial, commercial or public sites. The Contractor Supervisor shall ensure all specifications are being met, ensure contract work does not conflict with ceremonies and funerals, and ensure employees are adequately supervised and proper conduct is maintained.

ii. Contractor Supervisor shall prevent any disruption to the cemetery operations, including funerals, visitor privacy, internal traffic, and utilities.

iii. In the absence of the Supervisor, the Contractor shall appoint an English-speaking crew foreman or an employee who shall be responsible to ensure that the work is being accomplished in an expeditious manner and in accordance with the contract specifications, and that the work will progress without undue delay.

P. THE GOVERNMENT'S RESPONSIBILITIES

i. Upon award of the contract, the Government will inform the Contractor prior to commencing the work, of any known damages to the cemetery grounds, headstones/markers or any other areas that the Contractor is unaware of and not responsible for. In addition, upon award of the contract, a walk-through of the cemetery grounds will be scheduled by mutual agreement of the Government and Contractor, and will be attended by the COR, appropriate contractor personnel (to include the Supervisor/Project Manager). The Contracting Officer is an optional attendee.

ii. The Government will not provide the Contractor with any furnishings, fuel storage, equipment, materials, restrooms, or telephones. Utilities will be provided as defined in "AVAILABILITY AND USE OF UTILITY SERVICES".

iii. Notification of Non-Compliance: The COR will notify the Contractor of any detected non-compliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order ceasing all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such cessation direction shall be made the subject of claim for extension of time for excess costs or damages by the Contractor.

B.4 SPECIFICATIONS

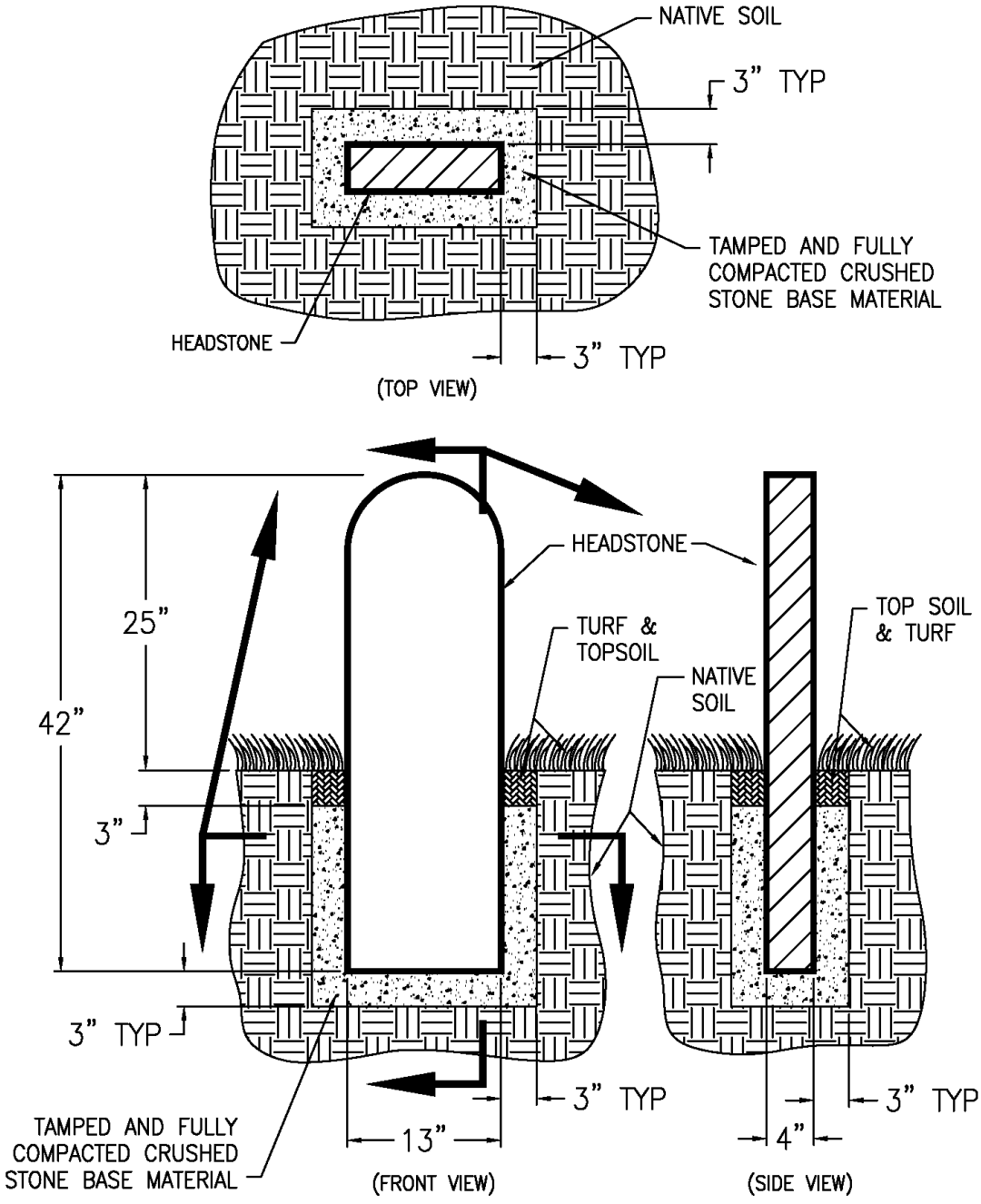
SECTION 00 01 10
TABLE OF CONTENTS

	DIVISION 00 – SPECIAL SECTIONS
00 01 15	List of Specification Exhibits and Drawings
	DIVISION 04 – MASONRY
04 01 00	Upright Granite Headstone Cleaning
	DIVISION 10 – SPECIALTIES
10 80 00	Upright Headstone Raise, Lower, Realign, Level, Backfill

SECTION 00 01 15
SPECIFICATION EXHIBITS AND DRAWINGS

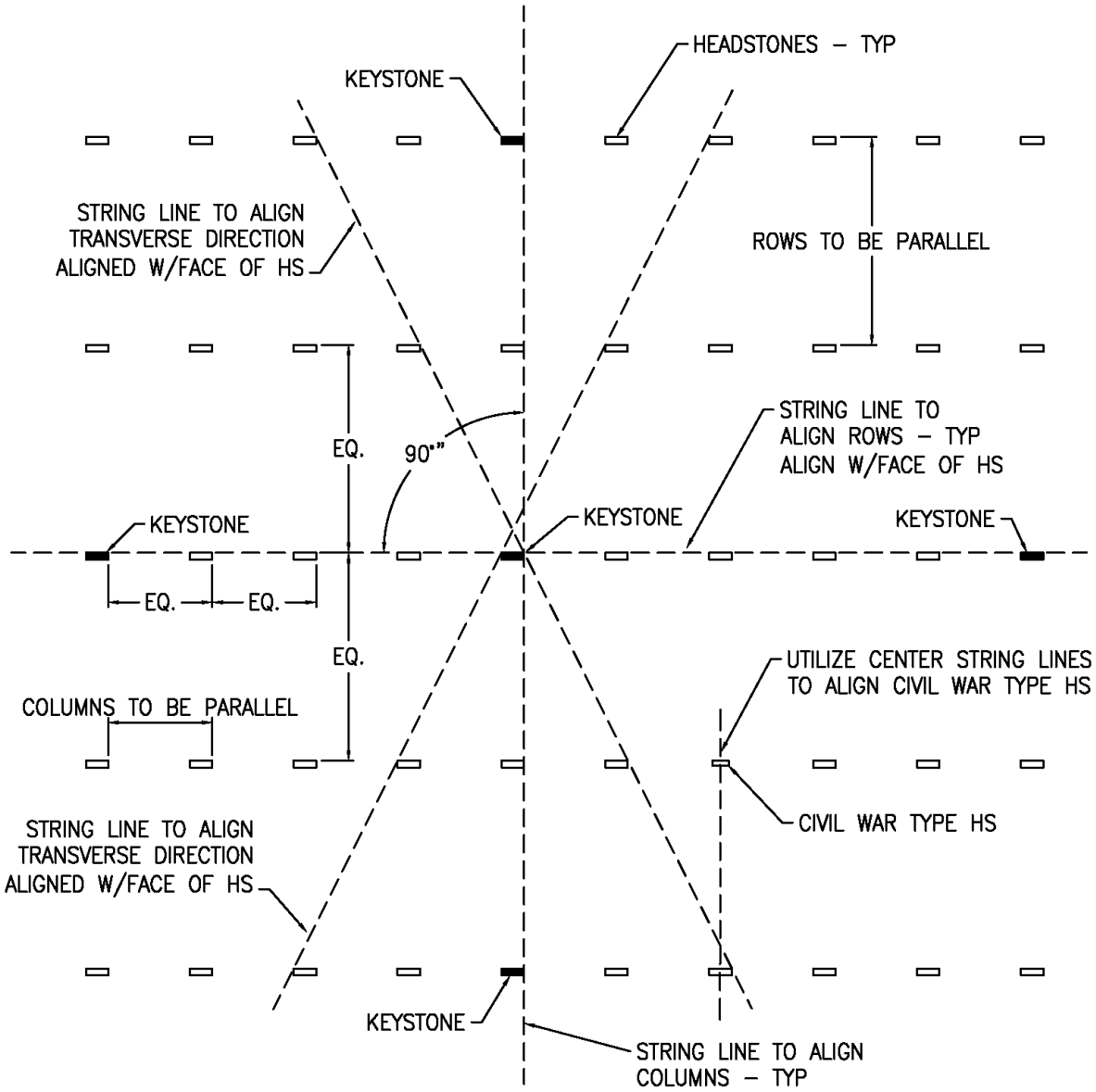
EXHIBIT LETTER	EXHIBIT TITLE
A	Upright Headstone Installation Details
B	Plan View – Upright Headstone Burial Section Layout and Realignment
C	Elevation View – Upright Headstone Burial Section Vertical Alignment
D	Headstone Raise and Realign Layouts

SECTION 00 01 15
EXHIBIT A



INSTALLATION DETAILS
UPRIGHT HEADSTONE

SECTION 00 01 15
EXHIBIT B



PLAN VIEW
UPRIGHT HEADSTONE
BURIAL SECTION LAYOUT AND REALIGNMENT

SECTION 00 01 15
EXHIBIT C

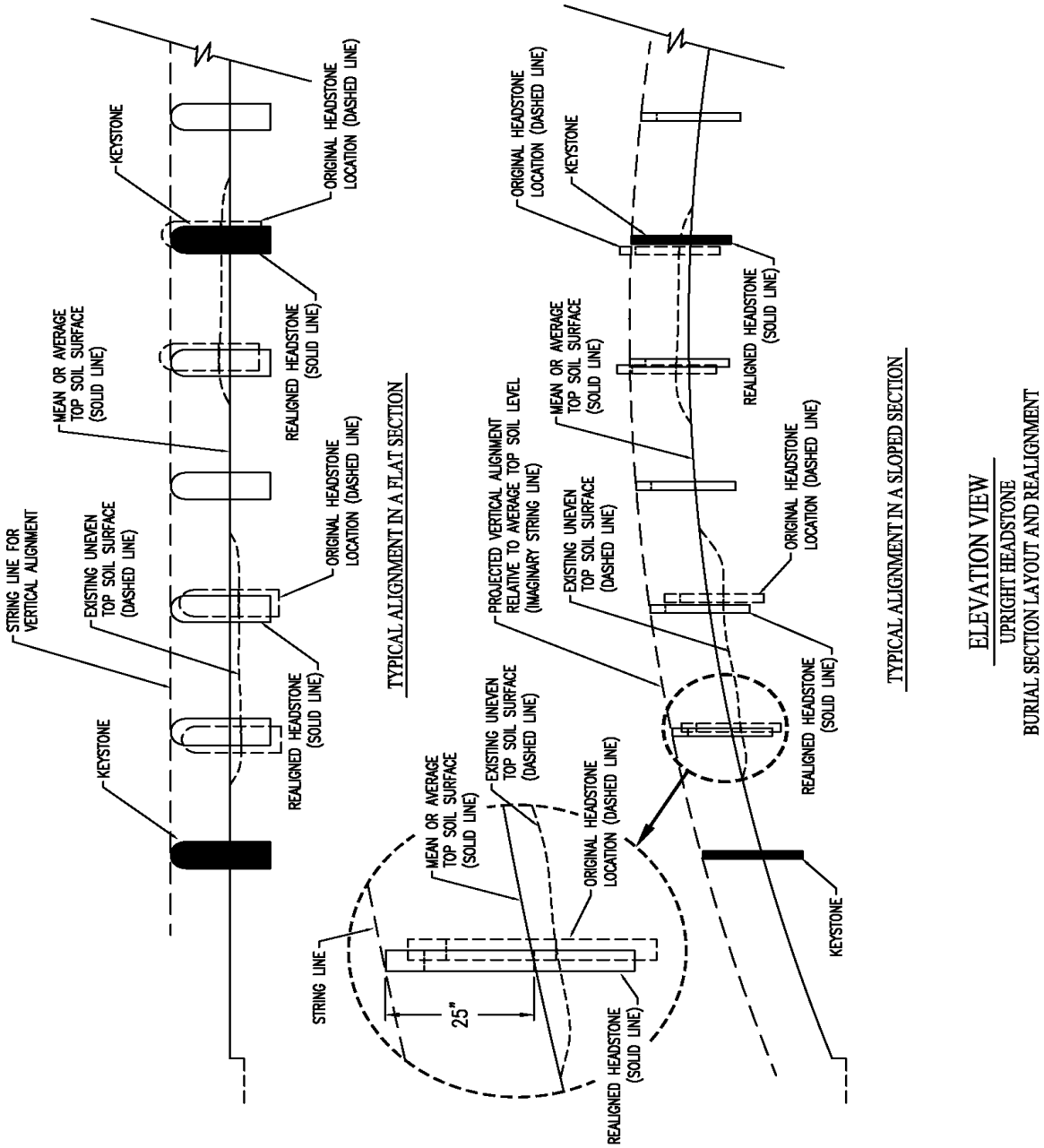


EXHIBIT D
GRAVESIITE LAYOUT MAP

[See attached pdf drawings]

SECTION 04 01 00
HEADSTONE CLEANING

1.1. DESCRIPTION OF WORK

1.1.1. This section outlines headstone cleaning services. The Contractor shall provide all supervision, professional advice/guidance, labor, parts, materials, equipment, and personnel, to provide the services defined herein.

1.1.2. The COR will determine the beginning point and ending points in each gravesite section.

1.2. All equipment and supplies maintained and operated by the Contractor shall be consistent and fully compliant with all applicable Federal, State, and County laws, ordinances and regulations and meet State inspection, safety, licensing, registration, and insurance requirements.

1.2.1. The Contractor shall clean upright granite headstones of weather deposits and rust staining.

1.2.2. The Contractor shall submit product data sheets for approval prior to use. All chemicals must be compatible with polished and unpolished granite. Acceptable materials generally include:

1.2.2.a. Non-ionic detergents.

1.2.2.b. Neutral pH stone cleaners.

1.2.2.c. Chelating agents specifically designed for granite rust stain removal (e.g., iron-oxide removers approved for historic stone).

1.2.2.d. Poultice materials containing iron-binding agents.

1.2.2.e. No hydrochloric acid, hydrofluoric acid, abrasive blasting, or any treatment that could etch, degrade, or discolor granite.

1.2.3. Only headstones designated by the Cemetery Director or COR will be cleaned.

1.2.4. All in-ground vases, temporary markers, floral, commemorative, or other types of decorations (arrangements) causing interference with the cleaning of the headstones or flat markers operation shall be carefully, and in an orderly manner, moved from and after completion of the work, moved back to all gravesites by the Contractor. Prior to removal, the contractor shall verify the numbering sequence and location of the flat marker and associated decorations or vases.

1.3. HEADSTONE/MARKER CLEANING PROCESS

1.3.1. Pre Inspection: Document existing conditions with photographs. Identify cracks, spalls, or instability; report immediately.

1.3.2. The Contractor shall clean five (5) designated headstones to demonstrate the contractor's process and effectiveness in cleaning for COR approval before full production.

1.3.3. Wet headstone thoroughly with clean water to prevent deep chemical absorption.

1.3.4. Apply approved chemical poultice or liquid cleaner according to manufacturer instructions. Ensure chemicals do not contact surrounding turf, adjacent markers, or metals. That Contractor shall ensure that any protective sheeting used shall not damage the turf.

1.3.5. Allow material to dwell per product guidance. Gently agitate with soft-bristle natural or nylon bristle brushes only. Plastic or rubber scrapers (non-metallic) may also be utilized.

1.3.6. Rinse thoroughly with low pressure (less than 300 psi) clean water until residue is fully removed. Use containment as required to prevent chemical runoff. If water used in cleaning should soften the soil around the base of the headstone or flat marker so that the headstone or flat marker is loosened, care shall be taken not to tip the headstone or flat marker out of plumb or alignment. Headstones and flat markers shall be set and anchored firmly in place with no movement from forces subjected by the COR or inspector after cleaning has been completed.

1.3.7. If staining persists, repeat process up to two additional cycles. (Escalation to stronger solutions requires COR approval.)

1.3.8. Present cleaned stones in a single burial section to the COR for acceptance. Work shall be deemed acceptable when rust staining is significantly reduced or removed without harming stone integrity and no new damage, streaks, or discoloration are visible.

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SECTION 10 80 00
HEADSTONE RAISE, LOWER, REALIGN, LEVEL, BACKFILL

1.1. DESCRIPTION OF WORK

1.1.1. This section outlines upright headstone raise, lower, realignment, reset, and backfill services, defined as work consisting of extracting, resetting, aligning, backfilling, and compacting headstones that are already in place which have shifted out of vertical and/or horizontal alignment and plumb, as well as inventorying and assuring accurate placement on each gravesite at the Cemetery. (The term "headstone" shall hereafter refer to both upright and flat if not specified.) The Contractor shall provide all supervision, professional advice/guidance, labor, parts, materials, equipment, and personnel, to provide the services defined herein.

1.1.1.a. Terms

"Vertically plumb": This is how straight (up and down) an individual headstone is as measured by a level along both the side and face. Specification Exhibit A, Front and Side Views further illustrate "vertically plumb."

"Vertical alignment": This is how the height of all headstones above the ground surface line up in relation to each other as measured by a top string line. When the Government requires a "smooth, flowing transition between all headstones" the Government is providing a description of "vertical alignment." Specification Exhibit C, Elevation View further illustrates "vertical alignment."

"Lateral alignment": This is how the vertical faces of headstones in a single row or column line up in relation to each other as measured by a face string line or a side string line, respectively. Specification Exhibit B, Plan View further illustrates "lateral alignment."

"Transverse alignment": This is how the left and right corners of the headstones line up along the first diagonals, clockwise and counterclockwise, respectively. Transverse alignment can only be achieved when headstones are laterally aligned and when headstone spacing in both directions (rows and columns) is consistent (i.e. the same) throughout the section. Specification Exhibit B, Plan View further illustrates "transverse alignment."

1.1.2. The COR will determine the beginning point and ending points in each gravesite section.

1.1.3. Upright headstone descriptions:

1.1.3.a. Standard upright headstones are approximately 42 inches long, 13 inches wide, 4 inches thick, and weigh approximately 220 pounds.

1.1.3.b. Other headstone types may exist and are not included in the contract scope of work unless otherwise specified.

1.1.4. All in-ground vases, temporary markers, floral, commemorative, or other types of decorations (arrangements) causing interference with the raise and realignment of upright headstone operation shall be carefully, and in an orderly manner, moved from and after completion of the work, moved back to all gravesites by the Contractor. Prior to removal, the contractor shall verify the numbering sequence and location of the headstone and associated decorations or vases.

1.1.5. Headstones shall be removed from their sockets using wooden and/or metal clamps. If metal clamps are used, the area that contacts the headstone must be protected with a rigid fabric that will prevent damage to and marking of the headstone. Clamps may be attached to a skid steer loader (i.e. Bobcat®) or similar machine to extract the headstone from the socket. Use care not to scratch or damage headstones in any manner.

1.1.6. **WHEN HEADSTONES ARE REMOVED FROM THEIR SOCKETS, THEY SHALL BE CAREFULLY STORED ON EACH ASSOCIATED GRAVESITE.** DO NOT place on dirt piles or mud; they should be carefully placed on each associated gravesite and protected in such a way as to prevent any soiling and be out of the way of any other work. The headstones shall be laid with front inscription side up while the headstone is lying horizontally on the ground. The headstone shall be protected from direct ground contact while lying horizontally. The protection method shall be as approved by the COR and shall be free of deterioration in weather. An approved method is to support each headstone with two wood 4X4's. Alternate methods can be approved. Cardboard shall not be used. Wood or other suitable appropriate and publicly presentable material shall be used to keep the headstones from contact with the soil while lying horizontally during the construction period.

1.1.7. The Contractor shall be responsible for replacing damaged headstones and restoring all damages caused to turf during performance of this work.

1.1.8. Crushed Rock Base Material Specifications:

1.1.8.a. Crushed Rock shall be composed of granite, sound rock that is produced by blasting and then crushing.

1.1.8.b. Crushed Rock shall be clean, hard, tough, and durable fragments (excluding) schist, shale or slate) of uniform quality throughout and free of any detrimental quantities of soft, friable, thin, elongated or laminated pieces, disintegrated material, dirt, organic matter, oil, alkali, or other deleterious substance.

1.1.8.c. Crushed Rock shall consist of hard durable fragments of particles of rock, free of stripping dirt, vegetation, and other foreign substances. Hardness: Resistant to breaking, crushing or crumbling.

1.1.8.d. Shape: Sharp and angular

1.1.8.e. Gravel or Crushed Gravel mixed with filler, sand, crushed rock, or crushed stone are **NOT** acceptable substitutes.

1.1.8.f. Crushed Rock shall consist of the product obtained by crushing rock or stone so that is meets the following gradation requirements:

Sieve Size % Passing	
Particle Size	% of Passing
3/8 inch	95 – 100
No. 4	80 – 95
No. 8	50 – 85
No. 40	25 – 60
No. 200	4 - 10

1.1.8.g. The gradation of crushed rock shall comply with ASTM D-448. Sampling and sieve analysis shall be performed in accordance with ASTM D-75 and ASTM C-136.

1.1.9. Compaction of Crushed Rock Base Material:

1.1.9.a. The Crushed Rock Base Material shall be compacted in lifts not exceeding 1-1/2" in thickness. Before compaction, moisten or aerate each layer as necessary to provide optimum moisture content. If the fines are dry at the time of compaction, use a very fine mist type hose and spray the Base Material sparingly. The moisture content of the material during placing operations shall be within ± 2% of the optimum moisture content as determined by ASTM D 1557. Compact each layer to 90% to 95% relative density. Do not perform compaction operations on excessively wetted soils.

1.1.9.b. Tamping Tools: Shall be approved by COR prior to use. Tamping tools shall have sufficient impact area and weight to achieve 90% to 95% compaction of the Crushed Rock Base Material. ***Tamping tools having wood handles and that do not have sufficient weight are not acceptable***.

1.2. UPRIGHT HEADSTONE INSTALLATION, BACKFILL, AND COMPACTION

1.2.1. Headstones shall be removed from their sockets per paragraph **1.1.5**.

1.2.2. Sockets shall be dug with a three (3) inch clearance at the front, back, sides and underneath the headstone. Headstone sockets shall be dug to the required depth to meet the height and alignment requirements as specified in paragraph **1.4.4.**

1.2.3. All headstone sockets shall be clean and free of loose dirt and debris prior to adding Crushed Rock Base Material.

1.2.4. In cases where headstone sockets need to be realigned/shifted, and/or re-dug, apply the following procedures:

1.2.4.a. After removal of the headstone(s), backfill and compact the exiting socket prior to digging the new socket. Backfill the existing socket with moistened Crushed Rock Base Material. Thoroughly tamp to 90% to 95% compaction at each 1 ½"inch vertical intervals (1 ½" inch lifts), leaving the last 3 inches at the top to have tamped topsoil and turf sod applied.

1.2.4.b. Install 3 inches of topsoil and sod patch to match the existing Bermuda turf species.

1.2.4.c. The Contractor shall dig/excavate the new socket in accordance with the requirements in paragraph 1.2.2.

1.2.4.d. All headstone sockets shall be clean and free of loose dirt and debris prior to adding Crushed Rock Base Material.

1.2.5. Moistened Crushed Rock Base Material shall be added and heavily tamped to 90% to 95% compaction in the bottom of the sockets to provide a minimum three (3) inch footing under the base of the headstone prior to the re-installation of the headstones. Moistened Crushed Rock Base Material shall be placed around all four sides of the headstones and compacted, providing for a minimum fourteen (14) inches depth of Crushed Rock Base Material along the sides of the headstone as measured from the bottom of the headstone. Typically there should be three (3) inches of space remaining from the top of the compacted Crushed Rock Base Material to the ground surface to allow tamped topsoil and grass seed to be applied, to match surrounding landscaping. The actual measurement shall vary depending on the how much the headstone was raised or lowered and will be approved by the COR.

1.2.6. The completed raised and realigned headstones shall be anchored firmly in place such that the headstones are rigid with no give or play in any direction regardless of the soil and terrain conditions. All headstones shall be firmly set and anchored in place with no movement from forces subjected by the COR.

1.3. HEADSTONE RAISE AND REALIGNMENT PROCESS:

1.3.1. Prior to starting work in each burial section, the location of the existing permanent gravesite control markers and the required gravesite row/gravesite spacing layout dimensions shall be verified and certified by a licensed surveyor and coordinated with the COR.

1.3.1.a. The Contractor shall use a licensed surveyor to validate and/or relocate any existing permanent control markers that do not conform to the section layout.

1.3.1.b. The Contractor shall use a licensed surveyor to install temporary control markers where any existing permanent control markers cannot be located or are missing.

1.3.1.c. The Contractor shall use a licensed surveyor to accurately and precisely install temporary control markers at the ends of each gravesite row.

1.3.2. Headstones shall be accurately adjusted and precisely reinstalled on the correct gravesites by utilizing temporary grave plotting maps, existing permanent gravesite control markers, temporary contractor installed gravesite control markers, and temporary contractor installed control markers at the ends of each gravesite row. All measurements, setting of string lines, and the layout of rows/columns shall be taken from existing or temporary gravesite control markers, and NOT from previously set headstones, unless otherwise directed by the COR.

1.3.3. The mean (or average) topsoil level shall be determined for the entire section to be aligned in all directions with assistance from a licensed surveyor and the COR, with approval by the COR. The Contractor shall use the mean (or average) topsoil level to allow all of the headstones in the section to be aligned vertically without having drastic changes in headstone heights (several inches) between the rows and columns of headstones in ALL directions. In irregular terrain where sloping and uneven ground conditions exist, all headstones and markers will be set at the proper height and overall level necessary to provide a smooth, flowing transition between ALL headstones in ALL directions through uneven terrain. The Contractor shall take the adjoining sections and/or terrain into consideration when determining the mean topsoil levels. IMPORTANT: To meet the requirement of a smooth, flowing transition, the Contractor may be required to set the headstones at a height other than at the specified height above grade with approval by the COR.

1.3.4. Keystone Placement and Installation

1.3.4.a. The headstone realignment process starts by the selection of specific headstones throughout the gravesite section to be designated as "Key" stones (or "Keystones") for use throughout the remainder of the realignment process. Keystones shall be chosen and utilized throughout the section at a maximum spacing of every 10th headstone or at a more frequent spacing as necessary in areas of sloped or rolling terrain in order to achieve a smooth, flowing transition between the rows and columns. Note: Spacing of every 10^{th} headstone at the longest side of the section and spacing of every 5^{th} headstone at the shortest side of the section.

1.3.4.b. Each Keystone shall be permanently set in accordance with the requirements of paragraphs **1.2** and **1.3** at the proper location and at the proper height using a licensed surveyor with the approval of the COR. Keystones shall be laid out to the correct dimensions to match the required measurements for the section such that the rows and columns are evenly spaced. The vertical height of Keystones shall be adjusted to accommodate the mean (average) topsoil levels throughout the entire section in order to achieve a smooth, flowing transition between all the rows and columns.

1.3.4.c. Keystones shall be vertically plumbed and aligned by leveling the front, back, and sides while raising or lowering the headstone as necessary to achieve a height of 26 inches

[above preliminary grade, before sod] for upright headstones. IMPORTANT: To meet the requirement of a smooth, flowing transition, the Contractor may be required to set Keystones at a height other than at the specified height above grade with approval by the COR.

1.3.4.d. The COR shall approve of the quantity, location, height, and installation of Keystones prior to the Contractor continuing with the realignment process.

1.3.5. The next step in the headstone realignment process is the Contractor selects a row and a column of headstones at the center or close to the center of the section to be realigned with approval from the COR.

1.3.6. Install heavy string lines along the front, sides, tops, and transversely of all applicable Keystones. The string lines shall be laid out to the correct dimensions as determined by Keystones and the requirements of paragraph **1.4.1** such that the rows and columns are evenly spaced. All headstones shall be vertically plumbed and aligned by leveling the front, back, and sides while raising or lowering the headstone as required to achieve a height of 26 inches [above preliminary grade, before sod] for upright headstones. IMPORTANT: To meet the requirement of a smooth, flowing transition, the Contractor may be required to set the headstone at a height other than at the specified height above grade with approval by the COR. These measurements shall be adhered to as closely as possible and may be adjusted to suit unique site conditions with approval by the COR.

1.3.7. At the start of work in each burial section, the first row/column of reset/realigned headstones in each burial section shall be inspected by COR for appearance, spacing, depth, alignment, plumb, height, accuracy, and smoothness in grade transition. No further setting of headstones shall be done until this first row has been inspected and accepted by the COR. It is the Contractors responsibility to notify the COR 24 hours in advance of when each of these inspections will be needed.

1.3.8. All remaining headstones in all rows, columns, and transverse directions are then aligned in accordance with paragraph **1.4.4**. The installation, adjusting, and setting of the remaining headstones shall meet the requirements of paragraphs **1.2** and **1.3**.

1.3.9. A plus/minus (+/-) 1/8 inch maximum tolerance shall be maintained in the lateral and transverse directions in accordance with the dimensional requirements of paragraph **1.4.1**. The alignment of the headstones should be checked frequently during this process because the tamping of the headstones may move the headstone out of level or off the mark on the line.

1.3.10. Headstones shall be installed to within one degree of fully vertical when measured on front and sides using a digital level.

1.3.11. The measurements between rows or columns of headstones and between the headstones within each row or column may differ from one gravesite section to the next. This

condition is to be discussed with COR where this is found to occur. Some variances may be allowed by the COR in order to keep a uniform appearance of headstones being aligned.

1.3.12. Any headstones broken or damaged by the Contractor shall be reported to the COR or the Cemetery Director by close of business each working day in order that the grave can be properly marked. The Contractor shall be responsible for the cost of the headstone replacement. The cost of the replacement headstones will be deducted from Contractor's invoice(s). All headstone replacements must be coordinated with the COR. Any existing permanent gravesite control markers, temporary contractor installed control markers, grid or sectional monuments that are disturbed, displaced, or broken shall be replaced and properly reset by a licensed surveyor at the Contractor's expense. Curbs, roads, walks, turf, trees, utilities, etc. existing above and below the ground that are damaged or disturbed by the Contractor during performance of contract work shall be repaired at the Contractor's expense. The requirements of this paragraph shall be completed by the Contractor within fourteen (14) workdays, unless otherwise agreed to by the COR.

1.3.13. Government furnished headstones that are permanently removed from a grave for any purpose shall be transported by the Contractor to an approved location on cemetery grounds and destroyed, ensuring that the replaced headstone cannot be used for private, personal, or commercial activities.

1.4. MEASUREMENTS AND STANDARDS

1.4.1. Headstones for individual graves shall be erected on the centerline at the head of the grave with the inscription facing the grave. They shall be set plumb, in a line laterally, transversely, and diagonally with the headstones of other graves within the section. All headstones shall be set using a top string line, a face of headstone string line, a side of headstone string line and a transverse string line for proper alignment.

1.4.2 All measurements and string line set-ups shall be taken from established section gravesite control markers, not from previously set headstones, unless otherwise directed by the COR. All measurements shall be made in ascending grave number order.

1.4.3 At the start of work in each burial section, the first row of initial headstones in a burial section is to be inspected by COR for appearance, spacing, depth, alignment, plumb, height, accuracy, and smoothness in grade transition. No further setting of headstones shall be done until this first row has been inspected and accepted by the COR. It is the Contractors responsibility to notify the COR 24 hours in advance of when each of these inspections will be needed.

1.4.4 The normal heights of 25 inches above finish grade (after sod installation) for upright headstones and one (1) inch above finish grade for flat markers are the current standard height settings. Minor deviations in this standard height are permissible only to provide a uniform appearance in the top line in order to compensate for slight ground rises or

depressions within a burial section and accepted by the COR. In irregular terrain where sloping and uneven ground conditions exist, all headstones and markers shall be set at proper heights and levels to provide a flowing transition through uneven terrain.

1.4.5 Initial and replacement headstones in old sections of the cemetery where such stones were not or cannot be set at the standard height of 25 inches shall be set at the same distance above the ground as the adjacent headstones provided they can be set with the inscription above ground level.

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SECTION D - CONTRACT DOCUMENTS, EXHIBITS, OR ATTACHMENTS

Attachment 1 through Attachment 6

Attachment 1 Cemetery Map

Attachment 2 Work Summary & Progress Report (template)

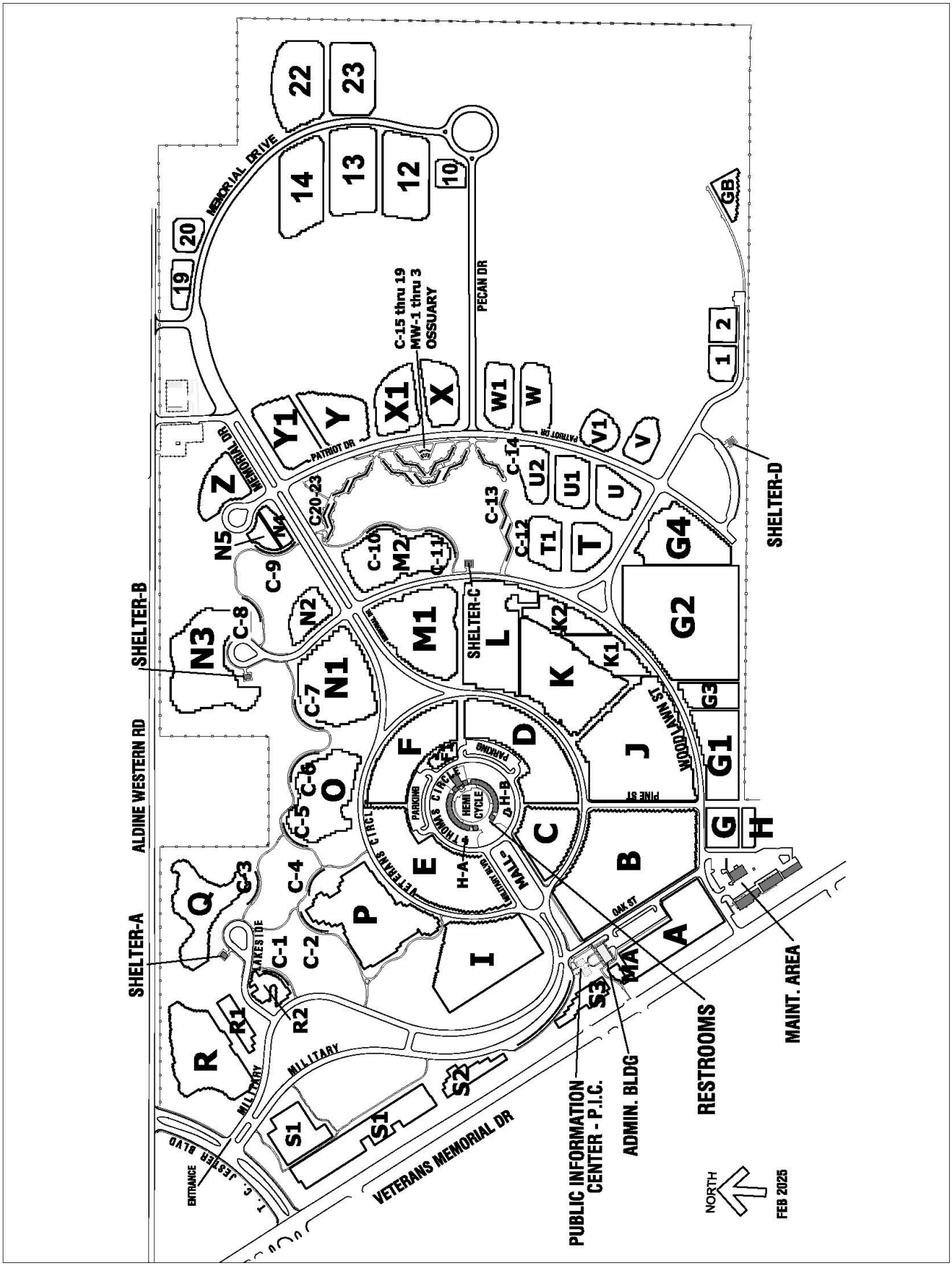
Attachment 3 Contract Discrepancy Report (CDR) (form)

Attachment 4 Initial Headstone Raise and Realign Survey (form)

Attachment 5 Daily Headstone Raise & Realign Verification Survey (form)

Attachment 6 Contractor Statement of Compliance

ATTACHMENT 1
CEMETERY MAP



ATTACHMENT 2

WORK SUMMARY & PROGRESS REPORT	**Period Covered:**	**From:**	**To:**
Cemetery Location: Fort Sam Houston National Cemetery	**Contractor Information**:		
Project Title: Headstone Raise and Realignment			
Contract No:			

Inspection / Acceptance: *The Contractor shall only tender for acceptance those items that conform to the requirements of this contract. The Government reserves the right to inspect or test some or all of the services that have been tendered for acceptance. The Government may require re-performance of nonconforming services at no increase in contract price. The Government shall exercise its post-acceptance rights:*

1. Within a reasonable time after the defect was discovered or should have been discovered; and

2. Before any substantial change occurs in the condition of the item unless the change is due to the defect in the item.

WORK COMPLETED & SUBMITTED FOR ACCEPTANCE

(This form is not to be used as an Invoice)

1	Section keystones have been properly chosen with the approval of the COR in order to achieve a smooth, flowing transition between the rows and columns. Keystones have been set in accordance with the requirements using a licensed surveyor.	No. of Keystones & Section #'s:	
		Date Completed:	
2	Headstone sockets or trenches are dug to meet the height and alignment requirements. Sockets are clean and free of loose dirt and debris. The crushed stone base material has been added to the correct level and fully compacted.	Quantity & Section #'s:	
		Date Completed:	
3	Headstones in burial sections are uniform in height, horizontally and vertically plumb, with inscriptions visible, and installed to ensure a pleasing top line while compensating for irregular terrain (sloping and uneven ground). Transverse and lateral alignment is within the maximum allowable tolerance of 1/8" and vertical alignment is within one degree of fully vertical when measured on front and sides using a digital level. COR has randomly sampled the headstones to verify height and alignment.	Quantity & Section #'s:	
		Date Completed:	
4	Completed raised and realigned headstones in all soil and terrain conditions are firmly set in place so that the headstones are rigid with no give or play. COR has randomly checked to assure headstones are firmly set in place.	Section Numbers:	
		Date Completed:	
5	Headstones otherwise present a neat overall appearance in a line vertically, laterally & transversely and provide a uniformly flowing transition throughout the Section and with adjoining Sections.	Section Numbers:	
		Date Completed:	
6	Headstones have been cleaned in accordance with the contract requirements.	Quantity & Section #'s:	
		Date Completed:	

Report below any circumstances which may have adversely affected work progress such as weather, strikes, delays by the Government, etc.

Signature of Contractor:	**Date Signed**	**Signature of COR**	**Date Signed**
Note: Contractor shall sign confirming that services indicated have been completed. Government shall also sign in acknowledgment of receipt of the Progress Report.			

Duplicate Form as Necessary

ATTACHMENT 3

CONTRACT DISCREPANCY REPORT	
Contract Number:	Report No. for this Discrepancy:
To: (Contractor/Manager's Name)	From: (Name of COR)

5. Dates

5a. Prepared:	5b. Returned by Contractor:	5c. Action Complete:

Discrepancy or Problem: (Describe in detail. Include reference to PWS Directive; attach additional sheet if necessary.)

_____
_____
_____
_____

Signature of Contracting Officer or COR:

8a. To: (Contracting Officer and/or COR)	8b. From: (Contractor)

9. Contractor Response as to Cause, Corrective Action and Actions to Prevent Recurrence: (attach additional sheet if necessary.)

_____
_____
_____

10a. Signature of Contractor Representative:	10b. Date:

11. Government Evaluation: (Acceptance, partial acceptance, reflection; attach additional sheet if necessary.)

_____
_____

12. Government Actions: (Reduced payment, cure notice, show cause, other)

_____
_____

13. Close Out

	Name	Title	Signature	Date
Contractor Notified				
b. COR				
c. CO				

ATTACHMENT 4
INITIAL HEADSTONE RAISE & REALIGN SURVEY

Station Number: _____ Date: _____

Cemetery: _____ Cemetery Director: _____

Contracting Officers Representative: _____

Instructions: The Contracting Officer's Representative (COR) MUST conduct an initial survey of ALL headstones included in the scope of work (SOW) before any work is performed. The COR will use the Burial Register Report and the Gravesite Layout Map(s) for the initial survey.

Discrepancy/Issue Identified: Y/N _____ Date: _____

_____

_____

All discrepancies/issues resolved Y/N _____ Date: _____

I certify that the Initial Headstone verification survey was completed by the COR/Cemetery Director/Foreman or Work Leader/designee. The Burial Register Report and the Gravesite Layout Map for the Cemetery and sections listed in the SOW were used to complete the survey.

COR Signature: _____ Date: _____

Contractor Acknowledgement:

I have received the Initial Headstone Raise and Realignment Survey performed by the Cemetery COR.

On-Site Superintendent Signature: _____ Date: _____

ATTACHMENT 5
DAILY HEADSTONE RAISE & REALIGN VERIFICATION SURVEY

Station Number:_____ Date:_____

Cemetery: _____ Cemetery Director: _____

COR: _____

Instructions: Prior to the completion of the workday, a Daily Headstone R&R Verification Survey MUST be completed by the COR utilizing the same Burial Register Report and Gravesite Layout Map as used in the initial survey for ALL completed work.

List Sections and Headstones R&R: _____

List discrepancy/issue: _____

All discrepancies/issues resolved: Y/N _____

COR informed District Director and Contracting Officer of all unresolved discrepancies/issues: Y/N _____

By signing below, I certify the Headstones re-verification survey was completed.

Daily Headstone Verification:

Date: _____ **Time Completed**: _____

COR Signature: _____

Contractor Acknowledgement:

On-Site Superintendent Signature: _____ Date: _____

ATTACHMENT 6
CONTRACTOR STATEMENT OF COMPLIANCE
FOR NATIONAL SHRINE PROJECTS

Contractor: _____

On-Site Superintendent: _____

Date: _____

I have briefed all employees on the following guidance and will be accountable for the following standards during the performance of this contract:

INITIALS

_____ The National Cemetery Administration honors veterans with a final resting place and lasting memorial that commemorate their service to our Nation. National Cemeteries are National Shrines. Therefore, the standards for management, maintenance, appearance, and operational procedures have been established by the National Cemetery Administration to reflect this Nations' concern and respect for those interred there. For this reason, my strict adherence to the Statement of Work and Specifications shall be required and shall be essential.

_____ I will ensure all Contractor Employees will remain aware of the remains buried in the grounds where work is being performed. The utmost care must be given to these remains and the headstones and flat grave markers that mark those gravesites and memorialize the service of individuals.

_____ I will ensure all Contractor Employees will not walk, stand, lean, sit or jump on headstones, markers, or monuments. No Contractor Employees will drive over them.

_____ I will ensure all Contractor Employees will not place or lean tools, equipment, or other items on headstones, markers, or monuments at any time.

_____ I have briefed all Contractor Employees on the approved methods and tools to remove headstones and markers from their sockets in accordance with the Contract Specifications. I will ensure use the tools and methods approved by the Contracting Officer Representative (COR) to lift headstones and markers out of the ground in order to avoid damage; pickaxes are not an acceptable tool.

_____ I will ensure all Contractor Employees will not place headstones or markers on dirt piles or mud once they are removed from their sockets; in order to show appropriate respect towards the families visiting the gravesites and the remains that are buried, I

will ensure headstones and markers are carefully stored on each associated gravesite and protected from damage or soiling, in accordance with Contract Specifications.

_____ I understand that the Contractor shall be responsible for replacing damaged headstones and markers and for restoring turf damaged during performance of this work.

_____ Should any on-site activity, incident, emergency, or disaster result in exposure and/or damage to any remains, container for remains (i.e., casket or urn), or outer burial container, I and all Contractor Employees will IMMEDIATELY notify the Cemetery Director, the COR and/or the Contracting Officer; I will take immediate steps to protect and render safe any exposed remains; and stop any further work until the Cemetery Director provides the Contractor Supervisor guidance regarding disposition of the remains and permission to proceed.

SIGNATURE BLOCK

_____
Signature

_____
Printed Name

_____
Date

AS TO STATEMENTS OR COMMITMENTS OF FUTURE ACTIONS, THIS COMPLIANCE STATEMENT COVERS THE CONTRACT PERIOD OF PERFORMANCE, INCLUDING ANY EXTENSIONS OR MODICIATIONS.