

SECTION 01 00 00

GENERAL REQUIREMENTS

PART 1 - GENERAL

1.1 GENERAL INTENTION

- A. Contractor shall completely prepare site for construction operations, including demolition and removal of existing site elements and improvements, and furnish labor, materials, equipment and services and perform and complete all Work for San Joaquin Valley National Cemetery, McCabe Road, Santa Nella, California, Pre-Placed Crypts in Section 21 as required by Drawings and Specifications.
- B. A pre-bid site visit may be scheduled at the option of the Contracting Officer. Other visits to the site by Bidders may be made only by appointment with the Cemetery Director, phone: 209-854-3944.
- C. Offices of Jacobs Engineering Group Inc, 1050 20th Street, Suite 200, Sacramento, CA 95811, Phone (916) 929-3323, as Architect Engineers (A/E), may render certain technical services during construction. Such services shall be considered as advisory to the Government and shall not be construed as expressing or implying a contractual act of the Government without affirmations by Contracting Officer (CO), Contracting Officer's Representative (COR) or his duly authorized representative.
- D. All Testing Laboratory services will be retained and paid for by the Contractor (see Specification Section 01 45 29, TESTING LABORATORY SERVICES).
 - 1. The Department of Veterans Affairs may elect to retain its own Testing Laboratory for any purpose. Before placement and installation of Work subject to tests by Testing Laboratory retained by Department of Veterans Affairs, the Contractor shall notify the COR in sufficient time to enable Testing Laboratory personnel to be present at the site in time for proper taking and testing of specimens and field inspection. Such prior notice shall be not fewer than three work days unless otherwise designated by the COR.
- E. The Contractor shall be required to report on a daily basis to the Cemetery Director or COR and at the main office of the San Joaquin Valley National Cemetery. Contractor shall obtain funeral and/or special schedules daily. This check-in is mandatory. The Contractor shall provide an anticipated Work schedule on a daily basis or as agreed upon with the Cemetery Director or COR and shall ensure that no Work is being performed at the immediate site of a scheduled interment or ceremony. The Contractor shall document services performed and provide information to the COR as required during specific time frames. If the Contractor fails to re-direct employees away from an event in a timely fashion, the CO/COR may then assist in doing so.
 - 1. The Contractor is 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.

- F. The Contractor shall establish and maintain a point-of-contact to receive emergency calls from the COR(s). The point-of-contact shall be available on a 24-hour basis including during weekends, Federal Holidays, and after normal hours of operation. The Contractor is to provide phone, pager and cell phone numbers for emergency and/or after-hours situations. Repairs shall be made as expeditiously as circumstances allow or within (24) hours of initial emergency call.
- G. All employees of General Contractor and subcontractors shall comply with security requirements as established by the COR and shall be identified by name and employer. They shall be restricted from unauthorized access.
- H. Prior to commencing Work, General Contractor shall provide proof that a OSHA certified "competent person" (CP) (29 CFR 1926.20(b)(2)) will maintain a presence at the Work site whenever the General or Subcontractors are present.
- I. Training:
 - 1. All employees of General Contractor or Subcontractors shall, at the minimum, have successfully completed the 10-hour OSHA certified Construction Safety course and/or other relevant competency training, as determined by Department of Veterans Affairs (VA) CP.
 - 2. Submit OSHA training records of all employees for approval before the start of Work.

1.2 STATEMENT OF BID ITEM(S)

- A. BID ITEM NO. 1, GENERAL CONSTRUCTION: Installation of all Work shown on the Plans and described in the Specifications including but not limited to: site clearing and demolition, including tree removal; excavation/overexcavation, earth moving, and site preparation; installation of pre-placed concrete lawn crypts; utilities; finish grading; roadway construction, with asphalt paving, aggregate paving, and curb and gutter; and planting.
- B. BID ITEM NO. 2: Purchase and deliver to site 4,000 pre-placed concrete lawn crypts, including 20 extra lids.
- C. ADD ALTERNATE NO. 1: In lieu of aggregate paving at the temporary turn-around bulb, provide a paved bulb, complete with curb and gutter, landscaped center island with curb and gutter, and irrigation, and all necessary appurtenances.

A single award will be made on Bid Item No. 1 and Bid Item No. 2. But in the event additional funds are available then Add Alternate No. 1 will be added to the award.

1.3 SPECIFICATIONS AND DRAWINGS FOR CONTRACTOR

- A. AFTER AWARD OF CONTRACT, one (1) bond paper sets of Specifications and Drawings will be furnished.
- B. Additional sets of Drawings may be made by the Contractor, at Contractor's expense.

1.4 CONSTRUCTION SECURITY REQUIREMENTS

- A. Security Plan:
 - 1. The security plan defines both physical and administrative security procedures that will remain effective for the entire duration of the Project.
 - 2. The General Contractor is responsible for assuring that all Subcontractors working on the Project and their employees also comply with these regulations.
- B. Security Procedures:
 - 1. General Contractor's employees shall not enter the site without following the procedures approved by the COR. They may also be subject to inspection of their personal effects when entering or leaving the Project site.
 - 2. For working outside the "regular hours" as defined in the Contract, the General Contractor shall give 3 days' notice to the COR so that appropriate arrangements can be provided for the Cemetery employees. This notice is separate from any notices required for utility shutdown described later in this Section.
 - 3. No photography of VA premises is allowed without written permission of the COR or authorized Cemetery Representative except as noted later in this Section.
 - 4. VA reserves the right to close down or shut down the Project site and order General Contractor's employees off the premises in the event of a national emergency. The General Contractor may return to the site only with the written approval of the COR.
 - a. Any delay due to close down or shut down as defined herein is without additional compensation.
- C. Key Control:
 - 1. The General Contractor shall provide duplicate keys and lock combinations to the COR for the purpose of security inspections of every area of Project including tool boxes and parked machines and to take any necessary emergency action.
- D. Document Control:
 - 1. Before starting any Work, the General Contractor/Subcontractors shall submit an electronic security memorandum describing the approach to following goals and maintaining confidentiality of "sensitive information".
 - 2. The General Contractor is responsible for safekeeping of all Drawings, Project Manual and other Project information. This information shall be shared only with those with a specific need to accomplish the Project.
 - 3. Certain documents, sketches, videos or photographs and Drawings may be marked "Law Enforcement Sensitive" or "Sensitive Unclassified".

Secure such information in separate containers and limit the access to only those who will need it for the Project. Return the information to the COR upon request.

4. These security documents shall not be removed or transmitted from the Project site without the written approval of COR.
5. All paper waste or electronic media such as CD's and diskettes shall be shredded and destroyed in a manner acceptable to the VA.
6. Notify COR immediately when there is a loss or compromise of "sensitive information".
7. All electronic information shall be stored in a specified location following VA standards and procedures using an Engineering Document Management Software (EDMS).
 - a. Security, access and maintenance of all Project Drawings, both scanned and electronic, shall be performed and tracked through the EDMS system.
 - b. "Sensitive information" including Drawings and other documents may be attached to e-mail provided all VA encryption procedures are followed and subject to VA email limitations.

E. Motor Vehicle Restrictions:

1. Vehicle authorization request shall be required for any vehicle entering the site and such request shall be submitted 24 hours before the date and time of access. Access shall be restricted to picking up and dropping off materials and supplies.
2. Vehicular access to the construction site shall be at the designated construction access point with appropriate best management practices in place to prevent tracking.

1.5 FIRE SAFETY

A. Applicable Publications: Publications listed below form part of this Article to the extent referenced. Publications are referenced in text by basic designations only. Use latest edition.

1. National Fire Protection Association (NFPA):
 - 10..... Standard for Portable Fire Extinguishers
 - 30..... Flammable and Combustible Liquids Code
 - 51B..... Standard for Fire Prevention During Welding, Cutting and Other Hot Work
 - 70..... National Electrical Code
 - 241..... Standard for Safeguarding Construction, Alteration, and Demolition Operations
2. Occupational Safety and Health Administration (OSHA):
 - 29 CFR 1926. Safety and Health Regulations for Construction
 - E84..... Surface Burning Characteristics of Building Materials

B. Fire Safety Plan: Establish and maintain a fire protection program in accordance with 29 CFR 1926. Prior to start of Work, prepare a plan detailing Project-specific fire safety measures, including periodic status reports, and submit to COR and Cemetery Director for review for compliance with Contract requirements in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND

SAMPLES. Prior to any worker for the Contractor or Subcontractor beginning Work, they shall undergo a safety briefing provided by the General Contractor's Competent Person per OSHA requirements. This briefing shall include information on the construction limits, safety guidelines, means of egress, break areas, work hours, locations of restrooms, use of NCA equipment, etc. Documentation shall be provided to the COR that individuals have undergone the Contractor's safety briefing.

- C. Site Access: Maintain free and unobstructed access to emergency services and for fire, police and other emergency response forces in accordance with NFPA 241.
- D. Separate temporary facilities, such as trailers, storage sheds, and dumpsters, from existing buildings and new construction by distances in accordance with NFPA 241. For small facilities with less than 20 feet exposing overall length, separate by 10 feet.
- E. Temporary Heating and Electrical: Install, use and maintain installations in accordance with 29 CFR 1926, NFPA 241 and NFPA 70.
- F. Means of Egress: Do not block exiting paths to roads. Minimize disruptions and coordinate with COR and Cemetery Director.
- G. Egress Routes for Construction Workers: Maintain free and unobstructed egress. Inspect daily. Report findings and corrective actions weekly to COR.
- H. Fire Extinguishers: Provide and maintain extinguishers in construction areas and temporary storage areas in accordance with 29 CFR 1926, NFPA 241 and NFPA 10.
- I. Flammable and Combustible Liquids: Store, dispense and use liquids in accordance with 29 CFR 1926, NFPA 241 and NFPA 30.
- J. Existing Fire Protection: Do not impair fire protection systems, except for portions immediately under construction, and temporarily for connections. Request interruptions in accordance with Article, OPERATIONS AND STORAGE AREAS, and coordinate with COR. All existing or temporary fire protection systems located in construction areas shall be tested as coordinated with the COR and Cemetery Director. Parameters for the testing and results of any tests performed shall be recorded and copies provided to the COR.
- K. Hot Work: Perform and safeguard hot Work operations in accordance with NFPA 241 and NFPA 51B. Coordinate with COR.
- L. Fire Hazard Prevention and Safety Inspections: Inspect entire construction areas weekly. Coordinate with and report findings and corrective actions weekly to COR.
- M. Smoking: Smoking is prohibited on Cemetery grounds.

- N. Dispose of waste and debris in accordance with NFPA 241. Remove from site weekly.
- O. Perform other construction, alteration and demolition operations in accordance with 29 CFR 1926.

1.6 OPERATIONS AND STORAGE AREAS

- A. The Contractor shall confine all operations (including storage of materials) on Government premises to areas authorized or approved by the COR. 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.
- B. Temporary buildings (e.g., storage trailers) and utilities may be erected by the Contractor only with the approval of the COR and shall be built with labor and materials furnished by the Contractor without expense to the Government. The temporary buildings and utilities shall remain the property of the Contractor and shall be removed by the Contractor at its expense upon completion of the Work.
- C. The Contractor shall, under regulations prescribed by the COR, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by the COR. 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.

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- D. Working space and space available for storing materials shall be as determined by the COR with agreement of the Cemetery. Contractor parking will be only in areas and on roadways designated and agreed to by the COR in agreement of the Cemetery.
 - 1. Contractor employee parking, storage, and staging shall be in areas designated on the Construction Documents or requested in writing and authorized by the COR. The areas shall be limited to areas within the limit of construction identified on the Drawings.
- E. Workmen are subject to rules of the Cemetery applicable to their conduct.
- F. Execute Work so as to interfere as little as possible with normal functioning of Cemetery as a whole, including operations of utility services, fire protection systems and any existing equipment, and with Work being done by others.
 - 1. Do not store materials and equipment in other than assigned areas.
 - 2. Schedule delivery of materials and equipment to immediate construction working areas in quantities sufficient for not more than two work days.

- Provide unobstructed access to the Cemetery areas required to remain in operation.
3. Where access by Cemetery personnel to Work areas is not required, storage of Contractor's materials and equipment will be permitted subject to fire and safety requirements.
 4. All such actions shall be coordinated with the Utility Company involved:
 - a. Whenever it is required that a connection fee be paid to a public utility provider for new permanent service to the construction Project, for such items as water, sewer, electricity, gas or steam, payment of such fee shall be the responsibility of the Contractor.
- G. Phasing: To insure such executions, the Contractor shall furnish the COR with a schedule of approximate dates on which the Contractor intends to accomplish Work in each specific area of site or portion thereof. In addition, the Contractor shall notify the COR two weeks in advance of the proposed date of starting Work in each specific area of site or portion thereof. Arrange such dates to insure accomplishment of this Work in successive phases mutually agreeable to the Cemetery Director, COR and Contractor.
- H. Construction Fence: Before construction operations begin, the Contractor shall provide a chain link construction fence, 7 feet minimum height, around the construction area indicated on the Drawings (indicated as "Limit of Construction"). 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 fence fabric shall extend to 1 inch above grade. The temporary fencing shall encompass the construction Work areas to serve as a pedestrian barrier and to alert Cemetery patrons of the construction site. Remove the fence when Work is complete and/or as directed by COR.
 1. Temporary fencing shall be embedded, anchored and secured to withstand the high winds typical of the Project's geographical area.
- I. When an area is turned over to Contractor, Contractor shall accept entire responsibility therefor.
 1. The Contractor shall maintain in operating condition existing fire protection equipment.
- J. Utilities Services: Maintain existing utility services for the Cemetery at all times. Provide temporary facilities, labor, materials, equipment, connections, and utilities to assure uninterrupted services. Where necessary to cut existing irrigation, water, sewer or air pipes, or conduits, wires, cables, etc. of utility services or of fire protection systems and communications systems (including telephone), they shall be cut and capped at suitable places where shown; or, in absence of such indication, where directed by COR. All such actions shall be coordinated with the Government and with the Utility Company involved.
 1. No utility service such as irrigation, water, gas, steam, sewers or electricity, or fire protection systems and communications systems may be interrupted without prior approval of COR. Electrical Work shall be accomplished with all affected circuits or equipment de-energized. When an electrical outage cannot be accomplished, Work on any energized

circuits or equipment shall not commence without the COR and Cemetery Director's prior knowledge and written approval.

- a. Coordinate shut down of irrigation system, if needed for installation of Work, with Cemetery Director. Irrigation system will not be permitted to be shut down for more than eight (8) consecutive hours.
 - b. Provide temporary irrigation or hand or truck watering to existing vegetation impacted by temporary irrigation system shut-downs.
2. The Contractor shall submit a request to interrupt any such services to both COR and the Cemetery Director in writing, 48 hours in advance of proposed interruption. Request shall state reason, date, exact time of, and approximate duration of such interruption.
 3. The Contractor will be advised (in writing) of approval of request, or of which other date and/or time such interruption will cause least inconvenience to operations of the Cemetery. Interruption time approved by the Cemetery and COR may occur at other than Contractor's normal working hours.
 4. Major interruptions of any system must be requested, in writing, at least 15 calendar days prior to the desired time and shall be performed as directed by the COR.
 5. In case of a Contract construction emergency, service will be interrupted on approval of COR. Such approval will be confirmed in writing as soon as practical.
 6. Whenever it is required that a connection fee be paid to a public utility provider for new permanent service to the construction project, for such items as water, sewer, electricity, gas or steam, payment of such fee shall be the responsibility of the Contractor.
- K. Abandoned Lines: All service lines such as wires, cables, conduits, ducts, pipes and the like, and their hangers or supports, which are to be abandoned but are not required to be entirely removed, shall be sealed, capped or plugged.
- L. To minimize interference of construction activities with flow of Cemetery traffic, comply with the following:
1. Keep roads, walks and entrances to grounds, to parking and to occupied areas clear of construction materials, debris and standing construction equipment and vehicles. Wherever excavation for new utility lines cross existing roads, at least one lane must be open to traffic at all times.
 2. Method and scheduling of required cutting, altering and removal of existing roads, walks and entrances must be approved by the COR.
- M. Coordinate the Work for this Contract with other construction operations as directed by COR. This includes the scheduling of traffic and the use of roadways, as specified in Article, USE OF ROADWAYS.
- N. Coordination of Construction with Cemetery Director: The burial activities at a National Cemetery shall take precedence over construction activities. The Contractor must coordinate and cooperate with the Cemetery Director, through the COR, in arranging construction schedule to cause the least possible interference with Cemetery activities in active burial areas. Construction noise

during committal services shall not disturb the service; anticipate cessation of construction activities during services in adjacent sections. Trucks and Workmen shall not pass through the service area during this period.

1. The Contractor is required to discontinue his Work sufficiently in advance of Easter Sunday, Mother's Day, Father's Day, Memorial Day, Veteran's Day and/or Federal holidays, to permit him to clean up all areas of operation adjacent to existing burial plots or areas before these dates.
2. Cleaning up shall include the removal of all equipment, tools, materials and debris and leaving the areas in a clean, neat condition to the satisfaction of the COR.

1.7 ALTERATIONS

- A. Survey: Before any Work is started, the Contractor shall make a thorough survey with the COR of areas in which alterations occur and areas which are anticipated routes of access and shall furnish a signed report, to the CO. This report shall list:
 1. Existing condition and types of surfaces not required to be altered throughout affected areas.
 2. Existence and conditions of items required by Drawings to be either reused or relocated, or both.
 3. Shall note any discrepancies between Drawings and existing conditions at site.
 4. Shall designate areas for working space, materials storage and routes of access to areas within buildings where alterations occur and which have been agreed upon by Contractor and COR.
 5. Include photographic documentation of the existing area of Work, including haul or access routes, surfaces, curbs, etc.
- B. Any items required by Drawings to be either reused or relocated or both, found during this survey to be nonexistent, or in opinion of COR to be in such condition that their use is impossible or impractical, shall be furnished and/or replaced by the Contractor with new items in accordance with Specifications which will be furnished by the Government. Provided the Contract Work is changed by reason of this subparagraph B, the Contract will be modified accordingly, under provisions of clause entitled "DIFFERING SITE CONDITIONS" (FAR 52.236 2) and "CHANGES" (FAR 52.243 4 and VAAR 852.236 88).
- C. Re-Survey: Thirty days before expected partial or final inspection date, the Contractor and COR together shall make a thorough re-survey of the areas involved. They shall furnish a report on conditions then existing of surfaces as compared with conditions of same as noted in first condition survey report.
 1. Re-survey report shall also list any damage caused by the Contractor to such surfaces, despite protection measures, and will form the basis for determining extent of repair Work required of the Contractor to restore damage caused by the Contractor's workmen in executing Work of this Contract.
- D. Protection: Provide the following protective measures:

1. Temporary protection against damage for grounds where Work is to be done, materials handled and equipment moved and/or relocated.
2. Wherever Work is performed, surfaces that are to remain in place shall be adequately protected prior to starting Work, and this protection shall be maintained intact until all Work in the area is completed.
3. Protect existing headstones, grave markers, control markers, section markers, etc. from damage at all times.

1.8 ENVIRONMENTAL CONTROLS

- A. In general, following preventive measures shall be adopted during construction to keep down dust and prevent mold:
 1. Dampen debris to keep down dust.
 2. Comply with the requirements of the San Joaquin Valley Air Pollution Control District.
- B. Final Cleanup:
 1. Remove all construction debris from the site weekly.
 2. Remove all construction equipment, tools, materials, etc. from the site upon completion of construction, prior to turn-over to Government.

1.9 DISPOSAL AND RETENTION

- A. Materials and equipment accruing from work removed and from demolition shall be disposed of as follows:
 1. Reserved items which are to remain property of the Government are noted on Drawings or in Specifications as items to be stored. Items that remain property of the Government shall be removed or dislodged from present locations in such a manner as to prevent damage which would be detrimental to re-installation and reuse. Store such items where directed by COR.
 2. Items not reserved shall become property of the Contractor and be removed by Contractor from the Cemetery.
 3. Items of portable furnishings located in areas in which Work is to be done under this Contract shall remain the property of the Government.

1.10 PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS

- A. The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the Work site which 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, 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 paint the cut with a tree pruning compound as directed by the COR.
 1. Install tree protection fence as indicated in the Drawings to identify areas for protection.

- B. 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 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 COR may have the necessary Work performed and charge the cost to the Contractor.

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- C. Refer to Section 01 57 19, TEMPORARY ENVIRONMENTAL CONTROLS, for additional requirements on protecting vegetation, soils and the environment. Refer to Articles, ALTERATIONS, RESTORATION, and OPERATIONS AND STORAGE AREAS for additional instructions concerning repair of damage to structures and site improvements.
- D. Refer to FAR clause 52.236-7, "Permits and Responsibilities," which is included in General Conditions. A National Pollutant Discharge Elimination System (NPDES) permit is required for this Project. The Contractor is considered an "Operator" under the permit and has extensive responsibility for compliance with permit requirements.
1. Contractor will apply for the NOI via SMARTS and pay the application fee to the Regional Water Quality Control Board.
 2. Contractor will prepare and submit the SWPPP to the State Water Resources Control Board via SMARTS. An outline of the SWPPP has been prepared for the Contractor's use; Contractor will update the SWPPP as necessary to obtain coverage under the state of California Construction General Permit.
 3. Contractor will link his account with the Government's LRP for the purpose of certifying the NOI and SWPPP.
 4. Contractor will perform all site inspections, observations, monitoring, and reporting required by the SWPPP and State Board, including preparation of, filing of, and certification of the Annual Report.
 5. The Contractor and affected subcontractors shall furnish all information and certifications that are required to comply with the permit process and permit requirements. Many of the permit requirements will be satisfied by completing construction as shown and specified. Some requirements involve the Contractor's method of operations and operations planning. The Contractor is responsible for employing best management practices. The affected activities often include, but are not limited to the following:
 - a. Designating areas for equipment repair if equipment cannot be relocated off of the Cemetery site for said repair (equipment maintenance will not be permitted on the Cemetery site);
 - b. Providing waste receptacles at convenient locations and provide regular collection of wastes;
 - c. Locating equipment concrete wash-out areas on site, and provide appropriate control of wash-waters;
 - d. Providing protected storage areas for chemicals, paints, solvents, fertilizers, and other potentially toxic materials; and

- e. Providing adequately maintained sanitary facilities.
- E. Refer to FAR clause 52.236-7, "Permits and Responsibilities," which is included in General Conditions. An air quality permit will be required to be obtained from San Joaquin Valley Air Pollution Control District. Contractor shall apply for and obtain requisite permits, including payment of any fees and preparation and submittal of any necessary documentation in pursuit of said permit.

1.11 RESTORATION

- A. Remove, cut, alter, replace, patch and repair existing Work as necessary to install new Work. Except as otherwise shown or specified, do not cut, alter or remove any structural work, and do not disturb any water/irrigation or electric Work without approval of the COR. 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 existing construction, except as otherwise shown or specified.
- B. Upon completion of Contract, deliver Work complete and undamaged. Existing work (landscape, stone, lawns, paving, roads, walks, etc.) 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 at least as good condition as existed before commencing Work.
- C. At the Contractor's own expense, the Contractor shall immediately restore to service and repair any damage caused by the Contractor's workmen to existing piping and conduits, wires, cables, etc., of utility services and systems and irrigation system control and power which are not scheduled for discontinuance or abandonment.
- D. Expense of repairs to such utilities and systems not shown on Drawings or locations of which are unknown will be covered by adjustment to Contract time and price in accordance with clause entitled "CHANGES" (FAR 52.243 4 and VAAR 852.236 88) and "DIFFERING SITE CONDITIONS" (FAR 52.236 2).

1.12 PHYSICAL DATA

- A. Data and information furnished or referred to below is for the Contractor's information. The Government shall not be responsible for any interpretation of or conclusion drawn from the data or information by the Contractor.
 - 1. The indications of physical conditions on the Drawings and in the Specifications are the result of site investigations by Jacobs Engineering Group Inc (site observation), Blair, Church, & Flynn (topographic survey), and Stevens, Ferrone, & Bailey Engineering Company (geotechnical investigation).

(FAR 52.236 4)

- B. Subsurface conditions have been developed by borings. Logs of subsurface exploration conducted by Stevens, Ferrone, & Bailey Engineering Company are shown diagrammatically on Drawings.
- C. A copy of the geotechnical investigation report is an Appendix to these Specifications and shall be considered part of the Contract Documents.
- D. The Government does not guarantee that other materials will not be encountered nor that proportions, conditions or character of materials will not vary from those indicated by explorations. Bidders are expected to examine the site of Work and logs of borings and, after investigation, decide for themselves the character of materials and make their bids accordingly. Upon proper application to the Department of Veterans Affairs, including approved scheduling, Bidders may be permitted to make subsurface explorations of their own at the site.

1.13 PROFESSIONAL SURVEYING SERVICES

- A. A registered professional land surveyor or registered civil engineer, registered and in good standing to perform land surveying services by the state of California, whose services are retained and paid for by the Contractor shall perform services specified herein and in other Specification sections. The Contractor shall certify that the land surveyor or civil engineer is not one who is a regular employee of the Contractor, and that the land surveyor or civil engineer has no financial interest in this Contract.
 - 1. The registered professional land surveyor or registered civil engineer shall be used for layout control of Work and to restore any grave section and/or site monuments that may be disturbed as a result of the Contractor's performance of the Work.

1.14 LAYOUT OF WORK

- A. The Contractor shall lay out the Work from Government established base lines and bench marks indicated on the topographic survey and the Drawings, and shall be responsible for all measurements in connection with the layout. The Contractor shall furnish, at the Contractor's own expense, all stakes, templates, platforms, equipment, tools, materials, and labor required to lay out any part of the Work. The Contractor shall be responsible for executing the Work to the lines and grades that may be established or indicated by the COR. The Contractor shall also be responsible for maintaining and preserving all stakes and other marks established by the COR until authorized to remove them. If such marks are destroyed by the Contractor or through Contractor's negligence before their removal is authorized, the COR may replace them and deduct the expense of the replacement from any amounts due or to become due to the Contractor.

(FAR 52.236 17)

- 1. Where burial section grid monumentation exists, it shall be verified for accuracy and then utilized for all crypt row layout Work.

2. The Contractor shall be responsible for executing the Work to the lines and grades needed to accomplish the Work.
- B. Establish and plainly mark lines for each gravesite control monument, lines for crypt layouts, road centerlines, and such other lines and grades that are reasonably necessary to properly assure that location, orientation, and elevations established for each such crypt section, roads, gravesite control monuments, and other site improvements are in accordance with lines and elevations shown on Contract Drawings.
- C. Following completion of general mass excavation and before any other permanent Work is performed, establish and plainly mark (through use of appropriate batter boards or other means) sufficient additional survey control points or system of points as may be necessary to assure proper alignment, orientation, and grade of all major features of Work. The Survey shall include, but not be limited to, location of lines and grades of crypt plots in both directions, centerline of roadways, major utilities and elevations of pavements:
 1. Such additional survey control points or system of points thus established shall be checked and certified by a registered land surveyor or registered civil engineer. Furnish such certification to the COR before any Work is placed.
- D. During progress of Work, the Contractor shall have lines, grades, locations and plumbness of all major form Work and crypts checked and certified by a registered land surveyor or registered civil engineer as meeting requirements of Contract Drawings. Furnish such certification to the COR before any major items of concrete Work or crypts are placed. In addition, furnish to the COR certificates from a registered land surveyor or registered civil engineer that the following Work is complete in every respect as required by Contract Drawings.
 1. Elevations of bottoms of crypt plots.
 2. Lines and elevations of drains.
 3. Lines of elevations of all swales and interment areas.
 4. Lines and elevations of roads, streets and parking lots.
 5. Lines and elevations and location of top of pre-placed crypts within their respective plots.
 6. Lines and elevations of grade over pre-placed crypts.
 7. Northing/Easting coordinate locations and elevation (invert) of all water, sanitary, storm, gas and irrigation structures, directional fittings, control wire and lines.
 8. Northing/Easting coordinate locations and elevation for each gravesite grid monument.
- E. Upon completion of the Work, the Contractor shall furnish the COR with reproducible Drawings, in pdf and AutoCAD formats, at the scale of the Contract Drawings, showing the finished grade on the grid developed for constructing the Work. These Drawings shall bear the seal of the registered land surveyor or registered civil engineer.

- F. The Contractor shall perform the surveying and layout Work of this and other articles and Specifications in accordance with the provisions of Article PROFESSIONAL SURVEYING SERVICES.

1.15 AS-BUILT DRAWINGS

- A. The Contractor shall maintain two full size sets of As-Built Drawings which will be kept current during construction of the Project, which will include all Contract changes, modifications and clarifications, and all utilities found during construction (type, material, size, depth, and location).
- B. All variations shall be shown in the same general detail as used in the Contract Drawings. To insure compliance, As-Built Drawings shall be made available for the COR's review, as often as requested, but in no case not less frequently than at monthly intervals.
- C. The Contractor shall deliver two approved completed sets of As-Built Drawings to the COR within 15 calendar days after acceptance of the Project by the COR.
- D. Paragraphs A, B, & C shall also apply to all Shop Drawings.

1.16 USE OF ROADWAYS

- A. For hauling, use only established public roads and designated permanent roads on Cemetery property and, when indicated or authorized by the COR, such existing or Contractor-constructed and/or modified temporary roads which are necessary in the performance of Contract Work. Temporary roads shall be constructed or modified by the Contractor at the Contractor's expense. When necessary to cross curbing, sidewalks, or similar construction, they must be protected by well-constructed bridges.
- B. When new permanent roads are to be a part of this Contract, the Contractor may construct them immediately to facilitate construction operations. These roads may be used by all who have business thereon within zone of construction operations.
 - 1. Roadways are to be kept free and clear of dirt, gravel, and debris for the full curb-to-curb width. Tracking onto roadways by Project vehicles and non-Project vehicles is to be cleaned immediately.
 - 2. Roadways installed as part of the Work shall be protected from damage until construction is complete and the Work is turned over to the VA.
 - 3. Roadways may be used by vehicles which are not loaded and which will not cause damage. Damaged roadways or roadway bases will be reconstructed by the Contractor at Contractor's expense.

1.17 TEMPORARY USE OF MECHANICAL AND ELECTRICAL EQUIPMENT

- A. Use of mechanical and electrical equipment to provide plumbing, light and power will be permitted subject to compliance with the following provisions:

1. Permission to use each system must be given by the COR. If the equipment or system is not used and maintained in accordance with the following provisions, the COR will withdraw permission for use of the equipment or system.
 2. Electrical installations used by the equipment shall be completed in accordance with the Manufacturer's recommendations to prevent damage to the equipment and the electrical systems. Voltage supplied to each item shall be verified to be correct and it shall be determined that motors are not overloaded. The electrical equipment shall be thoroughly cleaned before using it and again immediately before final inspection including vacuum cleaning and wiping clean interior and exterior surfaces.
 3. Any and all fees accrued by use of such utilities and equipment shall be paid by the Contractor.
- B. Prior to final inspection, the equipment or parts used which show wear and tear beyond normal shall be replaced with identical replacements at no additional cost to the Government.

1.18 TEMPORARY TOILETS

- A. Provide where directed, for use of all Contractor's workers, ample temporary sanitary toilet accommodations with suitable sewer and water connections. Keep such places clean and free from flies, and all connections and appliances connected therewith are to be removed prior to completion of Contract, and premises left perfectly clean.

1.19 AVAILABILITY AND USE OF UTILITY SERVICES

- A. The Government shall make all reasonably required amounts of utilities available to the Contractor from existing outlets and supplies, as specified in the Contract. The amount to be paid by the Contractor for chargeable utility services shall be the prevailing rates charged to the Government. The Contractor shall carefully conserve any utilities furnished without charge.
- B. The Contractor, at Contractor's expense and in a workmanlike manner satisfactory to the COR shall install and maintain all necessary temporary connections and distribution lines, and all meters required to measure the amount of electricity used for the purpose of determining charges. Before final acceptance of the Work by the Government, the Contractor shall remove all the temporary connections, distribution lines, meters, and associated paraphernalia.
- C. The Contractor shall install meters at the Contractor's expense and furnish the Cemetery a monthly record of the Contractor's usage of utilities as hereinafter specified.
- D. Electricity (for Construction and Testing): Furnish all temporary electric services.
1. Obtain electricity by connecting to the Cemetery electrical distribution system. The Contractor shall meter and pay for electricity required for electric cranes and hoisting devices, electrical welding devices and any electrical heating devices providing temporary heat. Where not available

or not convenient to connect to the Cemetery distribution system, the Contractor shall supply power via portable generators at his own expense. Generators shall be acoustically screened so as not to disturb committal services and/or visitation to the adjacent areas.

- E. Water (for Construction and Testing): Furnish temporary water service.
1. Obtain water by connecting to the Cemetery irrigation distribution system. Provide backflow preventer at connections to the irrigation system.
 2. If potable water is required and convenient connection is available the Contractor may connect to the Cemetery potable water distribution system. The Contractor shall install reduced pressure backflow preventer at each connection at own expense.
 3. Maintain connections, pipe, fittings and fixtures and conserve water use so none is wasted. Failure to stop leakage or other wastes will be cause for revocation (at COR's discretion) of use of water from the Cemetery's system.
 4. Where not available or not convenient to connect to the Cemetery distribution system, the Contractor shall supply water via portable/temporary means at his own expense.

1.20 INSTRUCTIONS

- A. The Contractor shall furnish Maintenance and Operating manuals and verbal instructions when required by the various sections of the Specifications and as hereinafter specified.
- B. Manuals: Maintenance and operating manuals (four copies each) for each separate piece of equipment shall be delivered to the COR coincidental with the delivery of the equipment to the job site. Manuals shall be complete, detailed guides for the maintenance and operation of equipment. They shall include complete information necessary for starting, adjusting, maintaining in continuous operation for long periods of time and dismantling and reassembling of the complete units and sub assembly components. Manuals shall include an index covering all component parts clearly cross referenced to diagrams and illustrations. Illustrations shall include "exploded" views showing and identifying each separate item. Emphasis shall be placed on the use of special tools and instruments. The function of each piece of equipment, component, accessory and control shall be clearly and thoroughly explained. All necessary precautions for the operation of the equipment and the reason for each precaution shall be clearly set forth. Manuals must reference the exact model, style and size of the piece of equipment and system being furnished. Manuals referencing equipment similar to but of a different model, style, and size than that furnished will not be accepted.
- C. Instructions: the Contractor shall provide qualified, factory trained manufacturers' representatives to give detailed instructions to assigned Department of Veterans Affairs personnel in the operation and complete maintenance for each piece of equipment. All such training will be at the job site. These requirements are more specifically detailed in the various technical sections. Instructions for different

items of equipment that are component parts of a complete system shall be given in an integrated, progressive manner. All instructors for every piece of component equipment in a system shall be available until instructions for all items included in the system have been completed. This is to assure proper instruction in the operation of inter related systems. All instruction periods shall be at such times as scheduled by the COR and shall be considered concluded only when the COR is satisfied in regard to complete and thorough coverage. The Department of Veterans Affairs reserves the right to request the removal of, and substitution for, any instructor who, in the opinion of the COR, does not demonstrate sufficient qualifications in accordance with requirements for instructors above.

1.21 RELOCATED ITEMS

- A. Contractor shall disconnect, dismantle as necessary, remove and reinstall in new location, all existing items indicated by symbol "R" or otherwise shown to be relocated by the Contractor.
- B. Perform relocation of such equipment or items at such times and in such a manner as directed by the COR.
- C. Suitably cap existing service lines, such as water, drain, gas, air, and/or electrical, whenever such lines are disconnected from equipment to be relocated. Remove abandoned lines in finished areas and cap as specified herein before under paragraph "Abandoned Lines".
- D. Provide all mechanical and electrical service connections, fittings, fastenings and any other materials necessary for assembly and installation of relocated equipment; and leave such equipment in proper operating condition.
- E. All service lines such as noted above for relocated equipment shall be in place at point of relocation ready for use before any existing equipment is disconnected. Make relocated existing equipment ready for operation or use immediately after reinstallation.

1.22 CONSTRUCTION SIGN

- A. Provide a Construction Sign where directed by the COR. All wood members shall be of framing lumber. Cover sign frame with 24 gage galvanized sheet steel nailed securely around edges and on all bearings. Signface shall be 4 feet x 5 feet and 6 inches. Provide two 4 inch by 4 inch posts (or equivalent round posts) set 3 feet into ground. Set bottom of sign level at 3 feet above ground and secure to posts with through bolts. Make posts full height of sign. Brace posts with 2 by 4 inch material as directed.
- B. Paint all surfaces of sign and posts two coats of white semi-gloss paint. Border and letters shall be of black gloss paint, except project title which shall be blue gloss paint.
- C. Maintain sign and remove it when directed by the COR.

- D. Detail drawing of Construction Sign showing required legend and other characteristics of sign is a part of the Contract Documents.

1.23 SAFETY SIGN

- A. Provide a Safety Sign where directed by COR. Signboard shall be 3 feet by 4 feet, 3/4-inch thick exterior grade plywood. Provide two 4 by 4 inch posts extending full height of sign and 3 feet into ground. Set bottom of sign level at 4 feet above ground.
- B. Paint all surfaces of Safety Sign and posts with one prime coat and two coats of white gloss paint. Letters and design shall be painted with gloss paint of colors noted.
- C. Maintain sign and remove it when directed by COR.
- D. Detail drawing of Safety Sign showing required legend and other characteristics of sign is included as a part of the Contract Documents.
- E. Post the number of accident free days on a daily basis.

1.24 CONSTRUCTION DIGITAL IMAGES

- A. During construction period through completion, furnish Department of Veterans Affairs daily color digital photographs of construction progress. Photographs of the reinforcing steel shall be taken after all reinforcing steel, sleeves, inserts, etc. are in place but prior to setting of runways. Photographs must show distinctly, at as large a scale as possible, all parts of Work embraced in picture.
- B. Photographs are to be taken with a high-resolution digital camera, minimum 6 megapixels, with good wide-angle capability. The images shall be recorded in JPEG format with a minimum of 24-bit color and no reduction in actual picture size.
 - 1. Compressed size of the file shall be no less than 80% of the original with no loss of information.
 - 2. File names shall contain the Project number, the date the image was taken, and a unique sequential identifier, for example: 913CM3012_YYYYMMDD_0001. Use underscore, not spaces in digital file names.
- C. The digital photo files shall become property of Government and will be both e-mailed (daily) and submitted on CD-ROM (completion of construction).
 - 1. The images shall be forwarded electronically to the COR/Project Manager via email to mark.ivory@va.gov within 2 days of when the photo was taken. Identify the content of each picture by a caption incorporated in the photo.
 - 2. The digital photo files shall also be submitted on CD-ROM to the COR/Project Manager at the conclusion of the Project. The CD-ROM shall also contain an index of all the images contained therein in either a TXT or Microsoft Word format.

1.25 HISTORIC PRESERVATION

- A. Where the Contractor or any of the Contractor's employees, prior to, or during the construction Work, are advised of or discover any possible archeological, historical and/or cultural resources, the Contractor shall immediately cease Work in the area of discovery, notify the COR verbally, and then with a written follow up.

1.26 PROJECT HEALTH AND SAFETY PLAN

- A. Prior to commencing any construction, the Contractor shall submit a site specific Project Health and Safety Plan (PHSP). At a minimum, the PHSP shall cover the following topics:
1. Organizational structure (including Responsible Persons and Contact Information)
 2. Site Characterization and Job Hazard Identification
 3. Site Control and Security
 4. Training
 5. PPE
 6. Heat Stress
 7. Spill Containment
 8. Decontamination
 9. Emergency Response
 10. Trench Safety

END OF SECTION