

**SECTION 01 00 02
GENERAL REQUIREMENTS (MINOR NCA PROJECTS)**

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**SECTION 01 00 02
GENERAL REQUIREMENTS (MINOR NCA PROJECTS)**

SPEC WRITER NOTES:

- 1. Use this section only for NCA minor projects.
- 2. Delete between // ---- //if not applicable to project. Include following Notice on 8a contracts only.
- 3. //NOTICE: The provisions of this Section, GENERAL REQUIREMENTS, pertain only to the contract between the Small Business Administration and its selected subcontractor(s).//
- 4. Verify identification requirements for all construction workers required by the Cemetery. ADD a statement concerning Photo ID requirements.

1.1 GENERAL INTENTION

A. Contractor shall completely prepare site for building operations, including demolition and removal of existing structures, and furnish labor, materials, equipment and services and perform and complete all work for _____ (Insert the Project Name) _____ as _____ required by drawings and specifications.

SPEC WRITER NOTES:

- 1. Following paragraph is applicable for construction at Cemetery locations.

B. Visits to the site by Bidders may be made only by appointment with the Cemetery Director.

SPEC WRITER NOTES:

- 1. Include following paragraph only on A/E projects.

//C. Offices of _____, 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 Resident Engineer/Contracting Officers Representative (RE/COR) or his duly authorized representative.//

SPEC WRITER NOTES:

- 1. The following paragraph is intended for use on NCA Minor Central Office projects and A/E projects where certain tests are to be performed by a VA retained Testing Laboratory.

- D. All Testing Laboratory services will be retained and paid for by the Contractor (see Spec Section 01 45 29, Testing Laboratory Services). However, 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 RE/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 less than three workdays unless otherwise designated by the RE/COR.
- E. All employees of general contractor and subcontractors shall comply with // VA security management program// security requirements as established by the RE/COR//, be identified by name and employer. They shall be restricted from unauthorized access.
- F. Prior to commencing work, general contractor shall provide proof that an 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.

SPEC WRITER NOTES:

1. The length of training is based on the project hazards and complexity, State and Federal regulations and VA requirements.

G. Training:

1. All employees of general contractor or subcontractors shall, at the minimum, have successfully completed the //10-hour// //30-hour// OSHA certified Construction Safety course and/or other relevant competency training, as determined by VA CP.
2. Submit OSHA training records of all employees for approval before the start of work.

SPEC WRITER NOTES:

1. In paragraph below change title, "GENERAL CONSTRUCTION" as necessary to reflect project title, such as A/C, Sewers, etc.
2. Unit-price items will only be used when their use is directed by the Project Manager. When using unit-price items, insert FAR clause 52.212-11 in the contract specifications.

1.2 STATEMENT OF BID ITEM(S)

A. ITEM I, GENERAL CONSTRUCTION: Installation of all work shown on the plans and described in the specifications including but not limited to: PROJECT DESCRIPTION.

SPEC WRITER NOTES:

- 1. If prices are needed for Alternate Bid Items, describe Alternate Items below and show items on SOLICITATION, OFFER AND AWARD (SF 1442). COORDINATE with Project Manager.

B. ALTERNATE NO.1: _____

C. ALTERNATE NO. 2: _____

SPEC WRITER NOTES:

- 1. Fill in blank space below with number of sets determined necessary for each project.

1.3 SPECIFICATIONS AND DRAWINGS FOR CONTRACTOR

A. AFTER AWARD OF CONTRACT, _____ bond paper set(s) of specifications and drawings will be furnished. // These drawings and specifications will consist of those returned by prospective bidders. //

B. Additional sets of drawings may be made by the Contractor, at Contractor's expense, from // Bond// Mylar// digital files// furnished by the Issuing Office.

SPEC WRITER NOTES:

- 1. Modify following article to suit the project. Coordinate with Cemetery.

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 sub-contractors working on the project and their employees also comply with these regulations.

B. Security Procedures:

- 1. General Contractor's employees shall //not enter the project site without an appropriate badge// not enter the site without following the procedures approved by the RE/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 RE/COTR 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 RE/COTR.
 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 RE/COR.
- C. Guards:
1. The General Contractor shall provide unarmed guards at the project site // 24 hours a day, 7 days a week// // after construction hours// when theft or vandalism warrants//.
- D. Key Control:
1. The General Contractor shall provide duplicate keys and lock combinations to the RE/COR for the purpose of security inspections of every area of project including toolboxes and parked machines, and to take any necessary emergency action.
- SPEC WRITER NOTES:
1. Modify or delete the following paragraph and/or sub-paragraphs on a project basis, following discussion with the PM as to relevance to the specific project.
 2. Delete paragraphs that aren't applicable and renumber.
- E. Document Control:
1. Before starting any work, the General Contractor/Sub Contractors 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 RE/COTR upon request.
4. These security documents shall not be removed or transmitted from the project site without the written approval of RE/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 RE/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.

SPEC WRITER NOTES:

1. Modify or eliminate the following paragraph following discussion with the PM on applicability for the specific project requirements.

F. 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.

SPEC WRITER NOTES:

1. Coordinate editing with RE/COR and/or Cemetery Director. Edit subparagraphs C, E, G, H, M, P and Q carefully as they directly relate to interim life safety edit for project and delete // and facility provisions.
2. Delete paragraphs that aren't applicable and renumber.

1.5 APPLICABLE PUBLICATIONS

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

1. American Society for Testing and Materials (ASTM):

E84-22 Surface Burning Characteristics of Building Materials

2. National Fire Protection Association (NFPA):

10-2010 Standard for Portable Fire Extinguishers

30-2008 Flammable and Combustible Liquids Code

51B-2009 Standard for Fire Prevention During Welding, Cutting and Other Hot Work

70-2008 National Electrical Code

241-2009 Standard for Safeguarding Construction, Alteration, and Demolition Operations

3. Occupational Safety and Health Administration (OSHA):

29 CFR 1926 Safety and Health Regulations for Construction

1.6 FIRE SAFETY :

A. 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 RE/COR/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's 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 RE/COR that individuals have undergone the Contractor's safety briefing.

B. Site and Building Access: Maintain free and unobstructed access to emergency services and for fire, police and other emergency response forces in accordance with NFPA 241.

C. 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 6 m (20 feet) exposing overall length, separate by 3m (10 feet).

D. Temporary Construction Partitions:

SPEC WRITER NOTES:

1. Where phasing drawings are used, show locations and hourly fire ratings of anticipated temporary construction partitions and hourly fire ratings of nearby existing construction on phasing drawings. Detail unusual conditions.
-
1. Install and maintain temporary construction partitions to provide smoke-tight separations between // construction areas // the areas that are described in phasing requirements // and adjoining areas. Construct partitions of gypsum board or treated plywood (flame spread rating of 25 or less in accordance with ASTM E84) on both sides of fire-retardant treated wood or metal steel studs. Extend the partitions through suspended ceilings to floor slab deck or roof. Seal joints and penetrations. At door openings, install Class C, $\frac{3}{4}$ hour fire/smoke rated doors with self-closing devices.
 2. Install // one-hour // two-hour // fire-rated // temporary construction partitions as shown on drawings to maintain integrity of existing exit passageways, fire-rated enclosures of hazardous areas, horizontal exits, smoke barriers, and opening enclosures.
 3. Close openings in smoke barriers and fire-rated construction to maintain fire ratings. Seal penetrations with listed through-penetration firestop materials in accordance with Section 07 84 00, FIRESTOPPING.
- 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 for occupied buildings, including paths from exits to roads. Minimize disruptions and coordinate with RE/COR/Cemetery Director.
- G. Egress Routes for Construction Workers: Maintain free and unobstructed egress. Inspect daily. Report findings and corrective actions weekly to RE/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.

SPEC WRITER NOTES:

1. Modify to suit design. Coordinate with phasing.

- J. Existing Fire Protection: Do not impair automatic sprinklers, smoke and heat detection, and fire alarm systems, except for portions immediately under construction, and temporarily for connections. Request interruptions in accordance with Article, OPERATIONS AND STORAGE AREAS, and coordinate with RE/COTR. All existing or temporary fire protection systems (fire alarms) located in construction areas shall be tested as coordinated with the Cemetery. Parameters for the testing and results of any tests performed shall be recorded by the Cemetery and copies provided to the RE/COTR.
- K. Smoke Detectors: Prevent accidental operation. Remove temporary covers at end of work operations each day. Coordinate with RE/COTR.
- L. Hot Work: Perform and safeguard hot work operations in accordance with NFPA 241 and NFPA 51B. Coordinate with RE/COR. // Designate Contractor's responsible project-site fire prevention program manager to permit hot work. // Coordinate with RE/COR.
- M. Fire Hazard Prevention and Safety Inspections: Inspect entire construction areas weekly. Coordinate with, and report findings and corrective actions weekly to RE/COR.
- N. Smoking: Smoking is prohibited in and adjacent to construction areas inside existing buildings and additions under construction. In separate and detached buildings under construction, smoking is prohibited except in designated smoking rest areas.
- O. Dispose of waste and debris in accordance with NFPA 241. Remove from //buildings daily// and// site weekly//.
- P. Perform other construction, alteration and demolition operations in accordance with 29 CFR 1926.

1.7 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 RE/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, office trailers) and utilities may be erected by the Contractor only with the approval of the RE/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. //With the written consent of the RE/COTR, the buildings and utilities may be abandoned and need not be removed.//

- C. The Contractor shall, under regulations prescribed by the RE/COR, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by the RE/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.

(FAR 52.236-10)

SPEC WRITER NOTES:

1. Use Paragraphs D through O for projects at existing sites and Paragraphs D' through F' for projects at new stations.
 2. If construction fences are required, and if there are any requirements or limitations on workmen's parking and access by Cemetery or Contractor, they should be so stated in this article.
 3. Check with requirements of Network Analysis System when that Section is included on project, because the Project Analysis Group generally composes the following subparagraphs G through H' to supplement the NAS section.
 4. On large projects, the drawings should indicate the space available to the Contractor. On small projects the RE/COR may determine what space may be made available.
 5. For all of the above, discuss in detail with the PM for direction, before final editing to make project specific.
- D. Working space and space available for storing materials shall be //as shown on the drawings. //as determined by the RE/COR with agreement of the Cemetery.// Contractor parking will be only in areas and on roadways designated and agreed to by the RE/COR in agreement of the Cemetery.
- 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 within buildings in use by the Cemetery in quantities sufficient for not more than two workdays. // Provide unobstructed access to the Cemetery areas required to remain in operation.
 3. Where access by Cemetery personnel to vacated portions of buildings is not required, storage of Contractor's materials and equipment will be permitted subject to fire and safety requirements. //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 Government and not the Contractor. //
- G. Phasing: To ensure such executions, the Contractor shall furnish the RE/COR with a schedule of approximate // phasing // dates on which the Contractor intends to accomplish work in each specific area of site, building or portion thereof. In addition, the Contractor shall notify the RE/COR two weeks in advance of the proposed date of starting work in each specific area of site, building or portion thereof. Arrange such // phasing // dates to ensure accomplishment of this work in successive phases mutually agreeable to the Cemetery Director, RE/COR and Contractor, as follows:

SPEC WRITER NOTE:

1. Set up phasing by buildings, burial areas, crypt fields, columbaria or special use areas in accordance with information received from Cemetery through Project Director.

Phase I:

Phase II:

SPEC WRITER NOTE:

1. Use the first sentence of Paragraph H', including material enclosed within

" // ," only if all areas will be vacated by Cemetery during the periods of alterations. Delete material within " // " from first sentence and include subparagraph 1 and 2 if one or more areas will be occupied by Cemetery staff during the periods of alterations.

H. Building(s) _____ will be occupied during performance of work // . // ; but immediate areas of alterations will be vacated. //

//1. Certain areas of Building(s) _____ will be occupied by Cemetery personnel for various periods as listed below:

AREA	PERIOD
(a)	
(b)	
(c)	
(d)	

The Contractor shall take all measures and provide all material necessary for protecting existing equipment and property in affected areas of construction against dust and debris, so that equipment and affected areas to be used in the Cemetery's operations will not be hindered. The Contractor shall permit access to Cemetery personnel through other construction areas which serve as routes of access to such affected areas and equipment. Coordinate alteration work in areas occupied by Cemetery Staff so that Cemetery operations will continue during the construction period.

2. Immediate areas of alterations not mentioned in preceding Subparagraph 1 will be temporarily vacated while alterations are performed. //

I. Construction Fence: Before construction operations begin, the Contractor shall provide a chain link construction fence, 2.1m (seven feet) minimum height, around the construction area indicated on the drawings. 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 375mm (15 inches). Bottom of fences shall extend to 25mm (one inch) above grade. The temporary fencing shall encompass the construction work area(s) to serve as a pedestrian barrier to alert cemetery patrons of the construction site. Remove the fence when directed by RE/COR.

SPEC WRITER NOTES:

1. Modify or delete the following based upon the specific project work scope and discussion with the PM.
2. Delete paragraphs that aren't applicable and renumber.

J. When a building is turned over to Contractor, Contractor shall accept entire responsibility, therefore.

1. The Contractor shall maintain a minimum temperature of 4 degrees C (40 degrees F) at all times, except as otherwise specified.
2. The Contractor shall maintain in operating condition existing fire protection and alarm equipment. In connection with fire alarm equipment, the Contractor shall make arrangements for pre-inspection of the site with Fire Department or Company (Department of Veterans Affairs or municipal) whichever will be required to respond to an alarm from the Contractor's employee.

SPEC WRITER NOTES:

1. If anticipated work involves a serious disruption of services, the permitted down time and other limitations should be mentioned in the specification.

K. 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 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 RE/COR. All such actions shall be coordinated with the Utility Company involved.

1. No utility service such as water, gas, steam, sewers or electricity, or fire protection systems and communications systems may be interrupted without prior approval of RE/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 RE/COR, and Cemetery Director's prior knowledge and written approval. //Refer to specification Sections 26 05 11, REQUIREMENTS FOR ELECTRICAL INSTALLATIONS, 27 05 11 REQUIREMENTS FOR COMMUNICATIONS INSTALLATIONS and 28 05 11, REQUIREMENTS FOR

ELECTRONIC SAFETY AND SECURITY INSTALLATIONS for additional requirements.//

2. The Contractor shall submit a request to interrupt any such services to both RE/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 RE/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 RE/COR.
 5. In case of a contract construction emergency, service will be interrupted on approval of RE/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 Government and not the Contractor.
- L. 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. The lines shall not be capped in finished areas, but shall be removed and sealed, capped or plugged-in ceilings, within furred spaces, in unfinished areas, or within walls or partitions; so that they are completely behind the finished surfaces.
- M. 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 of buildings 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 RE/COR.

- N. Coordinate the work for this contract with other construction operations as directed by RE/COR. This includes the scheduling of traffic and the use of roadways, as specified in Article, USE OF ROADWAYS.

SPEC WRITER NOTES:

1. Use following Subparagraph O on existing cemetery projects only.

- O. Coordination of Construction with Cemetery Director: The burial activities at a National Cemetery shall take precedence over construction activities. The Contractor must cooperate and coordinate with the Cemetery Director, through the RE/COR, in arranging construction schedule to cause the least possible interference with Cemetery activities in actual burial areas. Construction noise during the committal services shall not disturb the service. 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 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.

SPEC WRITER NOTES:

1. Modify or delete the following work related to Alterations and Environmental Controls, based upon the specific project requirements as discussed and approved by the PM.
2. Delete paragraphs that aren't applicable and renumber.

1.8 ALTERATIONS

- A. Survey: Before any work is started, the Contractor shall make a thorough survey with the RE/COR of // buildings // areas of buildings // areas in which alterations occur// areas which are anticipated routes of access//, and furnish a signed report, to the Contracting Officer. This report shall list // by rooms and spaces//:
1. Existing condition and types of //resilient flooring// doors// windows// walls// and// other surfaces not required to be altered throughout affected areas.

2. Existence and conditions of items //such as plumbing fixtures and accessories, electrical fixtures, equipment, venetian blinds, shades, etc.,// 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 RE/COR.
- 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 RE/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 RE/COR together shall make a thorough re-survey of the areas of buildings involved. They shall furnish a report on conditions then existing//, of resilient flooring, doors, windows, walls and other// 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 flooring and other 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. Wherever existing roof surfaces are disturbed they shall be protected against water infiltration. In case of leaks, they shall be repaired immediately upon discovery.
 2. Temporary protection against damage for portions of existing structures and grounds where work is to be done, materials handled, and equipment moved and/or relocated.
 3. Protect the interior of existing structures at all times, from damage, dust and weather inclemency. Wherever work is

performed, //floor//any indicated// 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.

1.9 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 and provide temporary construction partitions in existing structures were directed by RE/COR. Block off ducts and diffusers to prevent circulation of dust into occupied areas during construction.
- B. Vacuum and wet mop all transition areas from construction to the occupied Cemetery buildings at the end of each workday.
- C. Final Cleanup:
 - 1. Upon completion of the project, or as work progresses, remove all construction debris from above ceiling, vertical shafts and utility chases that have been part of the construction.
 - 2. All new air ducts shall be cleaned prior to final inspection.

SPEC WRITER NOTES:

- 1. On small projects tag items to be removed and stored, instead of noting such items on drawings or in specifications.

1.10 DISPOSAL AND RETENTION

- A. Materials and equipment accruing from work removed and from demolition of buildings or structures, or parts thereof, shall be disposed of as follows:
 - 1. Reserved items which are to remain property of the Government are // identified by attached tags // or // 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 were directed by RE/COR.
 - 2. Items not reserved shall become property of the Contractor and be removed by Contractor from the Cemetery //.
 - 3. Items of portable equipment and furnishings located in rooms and spaces in which work is to be done under this contract shall remain the property of the Government. When rooms and spaces are vacated by

the Department of Veterans Affairs during the alteration period, such items which are NOT required by drawings and specifications to be either relocated or reused will be removed by the Government in advance of work to avoid interfering with Contractor's operation.

SPEC WRITER NOTES:

1. Use the following subparagraph only when there are existing PCB transformers or capacitors to be removed and disposed of by the Contractor. Verify the need for this subparagraph with the Team Electrical Engineer.

4. PCB Transformers // and Capacitors // : The Contractor shall be responsible for disposal of the Polychlorinated Biphenyl (PCB) transformers // and capacitors // . The transformers // and capacitors // shall be taken out of service and handled in accordance with the procedures of the Environmental Protection Agency (EPA) and the Department of Transportation (DOT) as outlined in Code of Federal Regulation (CFR), Titled 40 and 49 respectively. The EPA's Toxic Substance Control Act (TSCA) Compliance Program Policy Nos. 6-PCB-6 and 6-PCB-7 also apply. Upon removal of PCB transformers // and capacitors // for disposal, the "originator" copies of the Uniform Hazardous Waste Manifest (EPA Form 8700-22), along with the Uniform Hazardous Waste Manifest Continuation Sheet (EPA Form 8700-22A) shall be returned to the RE/COTR who will annotate the contract file and transmit the Manifest to the Cemetery's Director.

a. Copies of the following listed CFR titles may be obtained from the Government Printing Office:

40 CFR 261	Identification and Listing of Hazardous Waste
40 CFR 262	Standards Applicable to Generators of Hazardous Waste
40 CFR 263	Standards Applicable to Transporters of Hazardous Waste
40 CFR 761	PCB Manufacturing, Processing, Distribution in Commerce, and use Prohibitions
49 CFR 172	Hazardous Material tables and Hazardous Material Communications Regulations
49 CFR 173	Shippers - General Requirements for Shipments and Packaging

49 CRR 173	Subpart A General
49 CFR 173	Subpart B Preparation of Hazardous Material for Transportation
49 CFR 173	Subpart J Other Regulated Material; Definitions and Preparation
TSCA	Compliance Program Policy Nos. 6-PCB-6 and 6-PCB-7

1.11 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 RE/COR.
- 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 RE/COR may have the necessary work performed and charge the cost to the Contractor.

(FAR 52.236-9)

- 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.

SPEC WRITER NOTES:

1. Use following paragraph when the disturbed area on the site exceeds one

acre. Confirm with the Project Manager.

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. VA will make the permit application available at the (appropriate NCA Central/Cemetery) office. 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 and the Contractor is responsible for employing best management practices. The affected activities often include, but are not limited to the following:

1. Designating areas for equipment maintenance and repair;
2. Providing waste receptacles at convenient locations and provide regular collection of wastes;
3. Locating equipment wash down areas on site, and provide appropriate control of wash-waters;
4. Providing protected storage areas for chemicals, paints, solvents, fertilizers, and other potentially toxic materials; and
5. Providing adequately maintained sanitary facilities.

1.12 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 //ducts, plumbing, steam, gas, // water/irrigation// or electric// work without approval of the RE/COR. Existing work to be altered or extended and that is found to be defective in any way, shall be reported to the RE/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 (walls, ceilings, partitions, floors, mechanical and electrical 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 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// fire protection systems// communications systems (including telephone)// irrigation system control and power// which are indicated on drawings and 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).

SPEC WRITER NOTES:

- 1. Check with Project Director to determine if soil report is available at the Cemetery.

1.13 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.

SPEC WRITER NOTES:

- 1. Modify Paragraph 1 as directed by the Project Manager based upon by whom and how the physical investigation of the site was conducted.

- 1. The indications of physical conditions on the drawings and in the specifications are the result of site investigations by _____.

(FAR 52.236-4)

SPEC WRITER NOTES:

- 1. Modify and or Delete Paragraph B, C and D based upon information provided by the Project Manager.
- 2. Where blanks are indicated, fill in the relevant information based upon the firm and method of investigation.

- B. Subsurface conditions have been developed by core borings and test pits. Logs of subsurface exploration conducted by _____ are shown diagrammatically on drawings.
- C. A copy of the //soil//geotechnical investigation// report //will be made available for inspection by bidders upon request to the Contracting Officer//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 several 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 will be permitted to make subsurface explorations of their own at site.

1.14 PROFESSIONAL SURVEYING SERVICES

A registered professional land surveyor or registered civil engineer 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.

SPEC WRITER NOTES:

1. Delete inapplicable portions of following article. Do not include for small additions to buildings, such as stairways, etc. For one story construction omit the words enclosed in paragraph 1.14, D, by // ---- // .

1.15 LAYOUT OF WORK

SPEC WRITER NOTES:

1. Coordinate the information in Paragraph A with the information to be provided in the Contract drawings. Clearly indicate where and by whom the base lines and benchmarks were established on the drawings, and if applicable, clearly indicate the physical basis for the coordinate system used on the design drawings to be established by physical existing reference points established within the project facility.

2. Only eliminate the above requirements if specifically directed to do so by the Project Manager.

A. The Contractor shall lay out the work from Government established base lines and benchmarks indicated on 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 RE/COR. The Contractor shall also be responsible for maintaining and preserving all stakes and other marks established by the RE/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 RE/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)

B. Establish and plainly mark center lines for each building and/or addition to each existing building, lines for each gravesite control monument, and such other lines and grades that are reasonably necessary to properly assure that location, orientation, and elevations established for each such structure and/or addition, roads, parking lots, gravesite control monuments, 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 footings, exterior walls, center lines of columns in both directions, major utilities and elevations of floor slabs:

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 RE/COR before any work (such as footings, floor slabs, columns, walls, utilities and other major controlling features) is placed.

SPEC WRITER NOTES:

1. Make sure that the drawings and specifications are coordinated as far as the allowable construction tolerances for permanent visible elements to be constructed, especially those that are directly part of or adjoining burial facilities like columbarium walls and/or memorial walls.
 2. Coordinate the construction tolerances in the specifications, especially for visible concrete foundations, as an example, so they are constructed to tighter tolerances than in the industry standards for foundations (that are typically below grade.)
- D. During progress of work, the Contractor shall have lines, grades, locations and plumbness of all major form work checked and certified by a registered land surveyor or registered civil engineer as meeting requirements of contract drawings. Furnish such certification to the RE/COR before any major items of concrete work are placed. In addition, furnish to the RE/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. Lines of each building and/or addition.
 2. Elevations of bottoms of footings and tops of floors of each building and/or addition.
 3. Lines and elevations of sewers and of all outside distribution systems.
 4. Lines of grave plot documentation.
 5. Lines of elevations of all swales and interment areas.
 6. Lines and elevations of roads, streets and parking lots.
 7. Lines and elevations// and location// of top of pre-placed crypts//within their respective plots//.
 8. Lines and elevations of grade over pre-placed crypts.
 9. Northing/Easting coordinate locations //and elevation// depth below finished grade// of all water, sanitary, storm, gas and irrigation structures, directional fittings, control wire and lines.
 10. Northing/Easting coordinate locations//and elevation// for each gravesite grid monument.
- E. Upon completion of the work, the Contractor shall furnish the RE/COR with reproducible drawings, in AutoCAD form, 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".

SPEC WRITER NOTES:

1. Modify the following paragraph as required to coordinate with any more stringent "As-built" requirements that may be in subsequent sections as a result of GPS data collection and GIS requirements.

1.16 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.
- B. All variations shall be shown in the same general detail as used in the contract drawings. To ensure compliance, as-built drawings shall be made available for the RE/COR's review, as often as requested.
- C. The Contractor shall deliver two approved completed sets of as-built drawings to the RE/COR within 15 calendar days after acceptance of the project by the RE/COR.
- D. Paragraphs A, B, & C shall also apply to all shop drawings.

1.17 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 RE/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// following approved plans that include construction, operation, maintenance and restoration//. When necessary to cross curbing, sidewalks, or similar construction, they must be protected by well-constructed bridges.

SPEC WRITERS NOTES:

1. Modify and/or delete B and C as applicable for this project.
- B. When new permanent roads are to be a part of this contract, the Contractor may construct them immediately to facilitate building operations. These roads may be used by all who have business thereon within zone of building operations.

- C. When certain buildings (or parts of certain buildings) are required to be completed in advance of general date of completion, all roads leading thereto must be completed and available for use at the time set for completion of such buildings or parts thereof.

SPEC WRITER NOTES:

1. Before including RE/COR's Field Office, check with Project Manager to determine if Cemetery can provide office space for the RE/COR in an existing building.
2. Modify or delete the materials regarding the Field Office following detailed discussion with the PM to make the information project specific to the project scope and conditions.

1.18 RE/COTR'S FIELD OFFICE

- A. The Contractor shall, within fifteen (15) days after receipt of Notice to Proceed, provide where shown on the drawings a temporary field office, furniture, and two-inch-deep gravel surfaced area for use of the RE/COR. Office and furniture shall be like new.
- B. The field office shall provide not less than 50 square meters (528 gross square feet) of floor area in one unit. Installation of the office shall meet all local codes.
- C. Provide office with two, 900 mm (three foot) wide exterior doors, including hardware and OSHA approved platform and stairs leading to grade.
- D. Enclose the entire perimeter of the office from the floor to the ground and finish to match exterior. Provide R7 insulation and seal tight to the ground with a painted 19 mm (3/4 inch) exterior grade plywood skirt.
- E. Exterior finishes shall be manufacturer's standards.
- F. Provide floor, wall, and roof with not less than R5 insulation.
- G. Interior finishes shall consist of resilient flooring, plywood paneling or painted wallboard on walls, and acoustical tile ceilings. Interior doors may be either painted or stained.
- H. Interior shall be subdivided with full height partitions to provide one office, one conference room, one toilet. Provide each space with 900 mm (three foot) wide door with master keyed locks.
- I. Provide 750 mm (2-1/2 feet) wide by 900 mm (3 feet) high operable windows; two in each room, except provide only one 600 mm (2 foot) high window in toilet room. Window openings shall be fitted with security

bars to prevent any forced entry. The doors of field office shall have a hasp and padlock and also deadbolts keyed from both sides.

- J. Provide sufficient fluorescent lighting in each room to deliver 750 lux (70 foot-candles) of light at desk top height without the aid of daylight. Provide one light switch in each room.
- K. Provide one duplex receptacle in each wall of each room. If a wall is 3.0 m (10 feet) long or more, provide two receptacles for each 3.0 m (10 feet), or portion thereof, of wall.
- L. The Contractor shall provide the following:

SPEC WRITER NOTES:

1. Edit the following to include providing and paying for electric, telephone and internet service for the duration of the project for new construction and other jobs where existing VA/NCA Phone Systems and Computer Networks are not available.
 2. For new construction or construction in remote areas, include provisions for installing temporary electrical service for RE Office Trailer and Contractor's use.
1. Electricity, hot and cold water, and necessary utility services (except telephone).
 2. All necessary piping, power circuits, network cabling, patch panels, equipment racks, cat 5e or better cabling for phones and computers, electrical fixtures, lighting, and other items necessary to provide a habitable structure for the purpose intended. Provide minimum of 3 network receptacles and 8 electrical receptacles located as approved by Resident Engineer upon review of the Contractor's submitted plan.
 3. Thermostatically controlled, centralized heating and air conditioning system designed to maintain the temperature between 21 and 27 degrees C (70- and 80-degrees F) with 50 percent relative humidity maintained during the air conditioning season. Thermostats shall be energy saving programmable type with a minimum of three temperature settings for each day of the week.
 4. One water closet, lavatory, mirror, toilet paper dispenser, paper towel dispenser, soap dispenser, towel bar, and two-prong coat hooks for toilet room. Provide holding tank for sanitary sewer, including periodic pumping as required
 5. One (1) wall mounted first aid kit that meets or exceeds current OSHA and AMSI Z.803-1 requirements.

6. One (1) wall mounted key safe with push-button combination lock sized for 12 keys.
7. One (1) wall mounted 10-pound Tri-Class (ABC) dry chemical fire extinguishers.
8. Two (2) hard hats, white, full brim with ratchet headband system.
9. Two (2) ANSI 207 Class 2 safety vest in lime color with two pockets, size extra-large.

SPEC WRITER NOTES:

1. Verify with Project Manager.

//10. The Contractor shall install a suitable security system for the field office and provide alarm monitoring services for the duration of the RE's occupancy.//

M. The Contractor shall, for the duration of the RE/COR's occupancy, provide the following:

1. Satisfactory conditions in and around the field office and parking area.
2. Maintenance of gravel surfaced area, including the area for parking, in an acceptable condition for vehicle and foot traffic at all times.
3. Maintenance of utility services.

SPEC WRITER NOTES:

1. Delete following subparagraph 4 unless specifically instructed by the Project Manager to leave it in.

//4. Bi-weekly janitorial services and supplies (toilet paper, soap, paper towels, water etc.). //

5. Potable water, fuel and electric power for normal office uses, including lights, heating and air conditioning.
6. Photocopier/Printer/Scanner/Fax Machine (complete with installation, service, maintenance, supplies and payment of all monthly usages charges):
 - a. Minimum Photocopier/Printer requirements:
 - 1) Collating/sorting/stapling.
 - 2) Enlarging/reducing
 - 3) Multi-size sheet feeder.
 - 4) Four paper tray sizes and bypass tray.
 - 5) Two-sided and single-sided copying.
 - 6) Network capability/connectivity
 - b. Minimum Scanner requirements:

- 1) Scan to email and scan to folder capability.
- 2) PDF, TIFF, JPEG output format capability
- 3) Network capability/connectivity.
- c. Minimum Fax Machine requirements:
 - 1) Plain paper copies.
 - 2) Memory feature with fifty documents.
 - 3) Automatic document feeder with 50-page capacity.
 - 4) Memory storage for twenty or more numbers.
 - 5) Network capacity/connectivity.
- d. All services, maintenance and supplies shall be same day service
- 7. Contractor shall provide two-way radios (2 each) Motorola DTR650 (or equal) with rechargeable batteries and charging stations. These radios will remain the property of Contractor.
- 8. Internet, Data and Voice Equipment/Connection and Communications (complete installation, maintenance and payment of all monthly usage charges).
 - a. 2 Voice lines (one dedicated phone line for FAX machine and one dedicated phone line for communications)
 - b. Voice line numbers must have local area code.
 - c. One (1) desk telephone, with speaker, answering machine and long telephone cord.
 - d. One (1) conference room telephone set with conference speaker(s) and extra-long telephone cord.
 - e. Indoor equipment: Must provide separate RJ45 connections for data communications (CAT5 cabling) and RJ11 connections for analog voice communications in quantities specified in General Requirements paragraph 1.17.L.2 above. Provide central location for termination of the CAT5 cabling.
 - f. Data Connection: Provide T-1 connection lines. Methods and material shall be per ANSI/EIA/TIA-568-1991 Standard. Install (1) four pair Category 5e/6 cable unshielded twisted pair (total of 8 conductors) (UTP) Category 5e/6 IEEE 802.3 100BaseT UTP Level 5e/6, 24 AWG cables. Contractor shall supply 100BaseT, Category 5e or Category 6 certified rack-mounted modular RJ45 punch down block/panel as required (24/48 ports) for jacks meeting the ANSI/EIA/TIA-568-A-5 category 5e/6 standards.
 - g. 24/7 live phone-base technical support.
 - h. Next business day on-site support, maintenance and service.

N. The Contractor shall provide the following like-new items in quantities listed:

1. (1) Desk/Workstation with adjustable keyboard drawer 738 mm H x 1.5 m W x 760 mm D (size 29-1/2" H x 60" W x 30" D) and two pedestals each with box drawer and file drawer
2. (1) Printer stand 663 mm H x 1.5 m W x 750 mm D (size 26-1/2" H x 60" W x 30" D)
3. (1) Conference table 900 mm x 1.8 m (size 3' x 6')
4. (1) Plan table 1.2 m x 2.1 m (4' x 7')
5. (2) Worktables 750 mm x 1.8 m (folding 30" x 72")
6. (1) Swivel chair with arms
7. (6) Conference chairs (armless & folding)
8. (2) Armchairs
9. (2) Lockable 5-drawer file cabinets, letter size
10. (1) Drawing rack, with 12-750 mm (12-30 inch) "Plan Hold" drawing holders, freestanding
11. (1) Metal Bookcase/Shelf Unit, 6 adjustable Shelves, 305 mm W x 900 mm L (36" x 12" x 72") or (36" x 12" x 72")
12. (1) Metal storage cabinet, 900 mm x 450 mm x 1.8 m (36" x 18" x 72") with six shelves
13. (1) Electric water cooler and provide a contract for water for the duration of the project.

SPEC WRITER NOTES:

1. Delete following paragraph 0 if RE/COTR field office will not require relocating during the tenure of this contract.

O. RE/COTR's field office and facilities shall be relocated once after its initial installation at the Contractor's expense. Relocation consists of moving the field office and facilities to a location within the VA site designated by the RE/COTR together with providing and maintaining utilities, parking area, sanitary facilities and janitorial service in new location until completion and final acceptance of project.

P. At the completion of all work, including the punch list, the RE/COR's field office and facilities shall become the property of the Contractor and the Contractor shall remove same, including utility connections, from the Cemetery. The site shall be restored to original condition and finished in accordance with contract requirements. All 5-drawer file cabinets provided shall become the property of the Government.

- Q. The Contractor shall furnish floor plans for approval by the RE/COR prior to furnishing the field office.
- R. The Contractor shall furnish floor plans for approval by the Resident Engineer prior to furnishing the field office.
- S. Within thirty (30) days after the Notice to Proceed, the Contractor shall provide for the use of the Resident Engineer, one (1) new full-size pickup type vehicle, (such as a Ford F-150 XL Super-Cab or equal) for use in completion of this Contract/Project. The vehicle will be leased for a period of 24 months and will be returned to the Contractor after completion of this project. The Resident Engineer must inspect and approve vehicle for use before lease. Contractor shall submit all lease documents to the RE office upon supplying vehicle to the Resident Engineer. Minimum criteria are as follows:
1. V-6 or V-8 Engine with Automatic Transmission.
 2. A/C, heater.
 3. Off road tires, tow hooks, class 3 hitch in rear with hitch attachment and 2" ball with $\frac{3}{4}$ " shank for hitch.
 4. Vehicle shall have 4-wheel drive capacity with hi/low range or on-demand capacities.
 5. Vehicle shall be provided with two (2) additional sets of keys with remote entry.
 6. Vehicle shall be provided with front and rear rubber floor liners as manufactured by Weather Tech or Resident Engineer approved equal.
 7. Provide all necessary fuel and service maintenance/repairs for the duration of the project. Contractor shall take vehicle off site as needed for these services.
 8. Contractor shall keep state license plate on the vehicle and maintain auto insurance at all times during the life of the project. Provide insurance coverage certificate to the RE office.
 9. No stickers, name plates or decals are to be placed on vehicle by Contractor.
 10. A loner vehicle shall be provided to Resident Engineer if vehicle is out for service for more than 24 hours.

1.19 TEMPORARY USE OF MECHANICAL AND ELECTRICAL EQUIPMENT

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

1. Permission to use each unit or system must be given by RE/COR. If the equipment is not installed and maintained in accordance with the following provisions, the RE/COR will withdraw permission for use of the equipment.
 2. Electrical installations used by the equipment shall be completed in accordance with the drawings and specifications to prevent damage to the equipment and the electrical systems, i.e., transformers, relays, circuit breakers, fuses, conductors, and their overload elements shall be properly sized, coordinated and adjusted. Voltage supplied to each item of equipment 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. Units shall be properly lubricated, balanced, and aligned. Vibrations must be eliminated.
 4. Automatic temperature control systems for preheat coils shall function properly and all safety controls shall function to prevent coil freeze-up damage.
 5. The air filtering system utilized shall be that which is designed for the system when complete, and all filter elements shall be replaced at completion of construction and prior to testing and balancing of system.
 6. All components of heat production and distribution system, metering equipment, condensate returns, and other auxiliary facilities used in temporary service shall be cleaned prior to use; maintained to prevent corrosion internally and externally during use; and cleaned, maintained and inspected prior to acceptance by the Government. // Burners, pumps, feedwater heaters and auxiliary equipment must be operated as a complete system and be fully maintained by operating personnel. Burner water must be given complete and continuous chemical treatment. //
- 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.
- C. This paragraph shall not reduce the requirements of the mechanical and electrical specifications sections.

SPEC WRITER NOTES:

1. Check with the Project Manager to verify if any existing toilets can be used by contractor's workmen.
2. For new construction and in locations where sanitary sewer is not available, include provisions for providing a wastewater holding tank and pumping services for the RE Office Trailer

1.20 TEMPORARY TOILETS

A. Provide where directed, (for use of all Contractor's workers) ample temporary sanitary toilet accommodations with suitable sewer and water connections, or when approved by RE/COR provide suitable dry closets where directed. 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.

//B. Contractor may have for use of the Contractor's workmen, such toilet accommodations as may be assigned to the Contractor by the Cemetery. The Contractor shall keep such places clean and be responsible for any damage done thereto by the Contractor's workmen. Failure to maintain satisfactory condition in toilets will deprive the Contractor of the privilege to use such toilets.//

SPEC WRITER NOTES:

1. Consult Project Manager for use of paragraph 1.20. Contractor shall furnish utilities from commercial sources for construction on new sites. When practical, Contractor shall furnish utilities from commercial sources for new buildings and large additions on existing sites. Otherwise, Cemetery will furnish utilities to Contractor at no cost for alterations and remodeling.
2. Check with Project Manager concerning practical use of meters.

1.21 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 electrical 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 RE/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 electricity as hereinafter specified.
- D. Heat: Furnish temporary heat necessary to prevent injury to work and materials through dampness and cold. Use of open salamanders or any temporary heating devices which may be fire hazards or may smoke and damage finished work, will not be permitted. Maintain minimum temperatures as specified for various materials:

SPEC WRITER NOTES:

1. Use sub-paragraph 1 in connection with existing projects only. Omit inappropriate sub-paragraphs.
2. Modify and/or delete E, F and G as required, following discussion with the PM as to project applicability, and renumber as needed.

- E. 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 own expense. Generators shall be acoustically screened so as not to disturb committal services and/or visitation to the adjacent columbarium.

- F. Water (for Construction and Testing): Furnish temporary water service.

1. Obtain water by connecting to the Cemetery irrigation distribution system. Backflow preventer may not be required at connections to the irrigation system. Water is available at no cost to the Contractor.
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 RE/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.
- G. Fuel: Natural and LP gas required for burner cleaning, normal initial burner-burner setup and adjusting, and for performing the specified burner tests will be furnished by the Government. Fuel required for prolonged burner setup, adjustments, or modifications due to improper design or operation of burner, or control devices shall be furnished by the Contractor at Contractor's expense.

SPEC WRITER NOTES:

1. Modify and or delete 1.21 and 1.22 as needed to make appropriate for this project, following discussion with the PM. Check with the Team Mechanical and Electrical Engineers for recommendations for the PM.
2. Renumber as necessary following edits.

1.22 NEW TELEPHONE EQUIPMENT

- A. The contractor shall coordinate with the work of installation of telephone equipment by others. This work shall be completed before the building is turned over to the Cemetery for use.

1.23 TESTS

- A. Pre-test mechanical and electrical equipment and systems and make corrections required for proper operation of such systems before requesting final tests. Final test will not be conducted unless pre-tested.
- B. Conduct final tests required in various sections of specifications in presence of an authorized representative of the RE/COTR. Contractor shall furnish all labor, materials, equipment, instruments, and forms, to conduct and record such tests.
- C. Mechanical and electrical systems shall be balanced, controlled and coordinated. A system is defined as the entire complex which must be coordinated to work together during normal operation to produce results for which the system is designed. For example, air conditioning supply; air is only one part of entire system which provides comfort conditions for a building. Other related components are return air, exhaust air,

hot water, controls and electricity, etc. Another example of a complex which involves several components of different disciplines is a burner installation. Efficient and acceptable burner operation depends upon the coordination and proper operation of fuel, combustion air, controls, and other related components.

- D. All related components as defined above shall be functioning when any system component is tested. Tests shall be completed within a reasonably short period of time during which operating and environmental conditions remain reasonably constant.
- E. Individual test result of any component, where required, will only be accepted when submitted with the test results of related components and of the entire system.

SPEC WRITERS NOTES:

1. Modify and/or delete 1.23 INSTRUCTIONS based upon the project specific factors, and discussion with the Project Manager (PM).
2. Coordinate with the individual specifications sections wherein there may be requirements for O&M Manual, and training for the equipment and/or systems provided as part of the project.
3. Eliminate conflicting information and specify which takes precedence, in case any remains.
4. Renumber as required.

1.24 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 RE/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 RE/COR and shall be considered concluded only when the RE/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 RE/COR, does not demonstrate sufficient qualifications in accordance with requirements for instructors above.

SPEC WRITER NOTES:

1. In following article, use sub-paragraph C for a new Cemetery, and sub-paragraph C' for an existing Cemetery. Delete inappropriate sub-paragraphs.

1.25 GOVERNMENT-FURNISHED PROPERTY

- A. The Government shall deliver to the Contractor, the Government-furnished property shown on drawings.
- B. Materials furnished by the Government to be installed by the Contractor will be furnished to the Contractor at the Cemetery.
- //C. The Contractor shall be prepared to receive this equipment from the Government and store or place such equipment not less than 90 days before Completion Date of project. //

//C'. Storage space for materials will be provided by the Contractor and the Contractor shall be prepared to unload and store such equipment therein upon its receipt at the Cemetery //.

- D. Notify RE/COR in writing, 60 days in advance, of date on which Contractor will be prepared to receive materials furnished by Government. Arrangements will then be made by the Government for delivery of materials.
1. Immediately upon delivery of materials, the Contractor shall arrange for a joint inspection thereof with a representative of the Government. At such time the Contractor shall acknowledge receipt of materials described, make notations, and immediately furnish the Government representative with a written statement as to its condition or shortages.
 2. The Contractor thereafter is responsible for such material until such time as acceptance of contract work is made by the Government.
- E. Equipment furnished by the Government will be delivered in a partially assembled (knock down) condition in accordance with existing standard commercial practices, complete with all fittings, fastenings, and appliances necessary for connections to respective services installed under contract. All fittings and appliances (i.e., couplings, ells, tees, nipples, piping, conduits, cables, and the like) necessary to make the connection between the Government furnished equipment item and the utility stub-up shall be furnished and installed by the contractor at no additional cost to the Government.
- F. Completely assemble and install the Government furnished equipment in place ready for proper operation in accordance with specifications and drawings.
- G. Furnish supervision of installation of equipment at construction site by qualified factory trained technicians regularly employed by the equipment manufacturer.

SPEC WRITER NOTES:

1. Check with Equipment Specification Writer concerning what equipment is scheduled to be relocated before using or omitting this article.
2. Modify and/or delete 1.25 based upon the project specific factors, and discussion with the Project Manager (PM).
3. Renumber as required.

1.26 RELOCATED // EQUIPMENT // ITEMS //

- A. Contractor shall disconnect, dismantle as necessary, remove and reinstall in new location, all existing equipment // and 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 RE/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.

SPEC WRITER NOTES:

- 1. Use construction sign when construction cost estimate is and over \$2,000,000.
- 2. The sample drawing of an approved Construction Sign, with locations for required text should be provided to the Contractor. Spec writer should obtain a pdf image or drawing from the PM, and it should be either included in this spec section, or on the drawings, with a reference to the drawings included in this specification.
- 3. Refer to Paragraph E for procedures for providing a sample Safety Sign.

1.27 CONSTRUCTION SIGN

- A. Provide a Construction Sign were directed by the RE/COR. All wood members shall be of framing lumber. Cover sign frame with 0.7 mm (24 gage) galvanized sheet steel nailed securely around edges and on all bearings. Sign face shall be 4 feet x 5 feet and 6 inches. Provide two 100 by 100 mm (4 inch by 4 inch) posts (or equivalent round posts) set 900 mm (three feet) into ground. Set bottom of sign level at 900

mm (three feet) above ground and secure to posts with through bolts. Make posts full height of sign. Brace posts with 50mm x 100 mm (two by four 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 RE/COR.
- D. Detail Drawing of construction sign showing required legend and other characteristics of sign is a part of this specification.
- //E. The image for the Construction Sign should be inserted at this location, or a reference to the sign being included in the drawings should be placed here. Coordinate through the PM.//

SPEC WRITER NOTES:

1. Specify safety sign for all projects when construction cost estimate is over \$2,000,000, except where the work is such that a sign cannot be observed by the Contractor's personnel sometime during the working day.
2. Refer to Paragraph F for procedures for providing a sample Safety Sign.

1.28 SAFETY SIGN

- A. Provide a Safety Sign were directed by RE/COR. Signboard shall be three feet x four feet, 19 mm (3/4-inch) thick exterior grade plywood. Provide two 100 mm by 100 mm (four by four inch) posts extending full height of sign and 900 mm (three feet) into ground. Set bottom of sign level at 1200 mm (four 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 RE/COR.
- D. Detail Drawing of safety sign showing required legend and other characteristics of sign is included in this specification.
- E. Post the number of accident-free days on a daily basis.
- //F. The image for the Construction Safety sign should be inserted at this location, or a reference to the sign being included in the drawings should be placed here. Coordinate through the PM.//

SPEC WRITER NOTES:

1. Photographs are not required for Station Level projects. Insert total number of photos in second line below. Number of photographs required shall be within limits included in following table:

Estimated Cost		No. of Photographs
Up to	\$250,000	50 to 100
" "	\$500,000	100 to 150
" "	\$1,000,000	150 to 200
" "	\$2,000,000	200 to 250
" "	\$5,000,000	250 to 300
" "	\$10,000,000	300 to 400

1.29 CONSTRUCTION DIGITAL IMAGES

- A. During construction period through completion, furnish Department of Veterans Affairs weekly color digital photographs of construction progress (8 to 10 images per week.) 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:

101CM3202_10-01-2013_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 and submitted on CD-ROM.
1. The images shall be forwarded electronically to the COR/Project Manager via email to NAME@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.

1.30 FINAL ELEVATION PHOTOGRAPHS

- A. Final photographs shall be taken by a commercial/professional photographer. They shall be taken upon completion, including landscaping. They shall be taken on a clear sunny day at as large a scale as possible to obtain sufficient detail to show depth and to provide clear, sharp pictures. All images shall become property of the Government.
- B. Photographs shall be artistically composed showing full front elevations of new columbarium court(s), memorial wall, ossuary, bridge, site features and surrounding landscapes. A minimum of thirty-six (36) images shall be taken as per these specifications.
- C. Minimum digital photo file size for final photos is 20 mb un-interpolated, preferably 52 mb. Submit proofs, via e-mail or web photo gallery, from which the COR/Project Manager will select the final images for printing.
- D. Pictures selected by the COR/Project Manager for printing shall be printed on regular weight paper, matte finish archival grade photographic paper and produced by a RA4 process from the digital image with a minimum 300 PPI. Photographs shall have full picture print with no margin.
- E. Submit two (2) 400 mm x 500 mm (16 x 20) framed prints and three (3) 8 x 10 prints of the final selected photos. Deliver to the COR/Project Manager, in boxes suitable for shipping,
- F. Submit a CD-ROM to the COR/Project Manager containing all (minimum 36) final digital photo files.

1. Images on CD-ROM shall be recorded in JPEG format with a minimum of 24-bit color and no reduction in actual picture size. 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 date the image was taken, the Project number and a unique sequential identifier.
 3. The CD-ROM shall also contain an index of all the images contained therein in either a TXT or Microsoft Word format.
- G. Each of the selected 16 x 20 prints shall be placed in a frame with a minimum 2 inches, maximum 3 inches of appropriate matting as a border. Provide a selection of 3 different mats and 3 different frames from which the COR will select one mat and one frame style to frame both prints. Preferred frame style is wood molding, matte black finish, box frame, 1-1/8" wide x 7/8-inch deep.
- H. Place a typewritten self-adhesive identity label on the back of each final print without damage to photograph. PHOTO NUMBER shall be included in both the digital file name on the CD and on the photo print label.
- I. The following information shall be on the identity-label for photographs:
1. PHOTO NUMBER;
 2. CEMETERY NAME
 3. LOCATION;
 4. PROJECT TITLE;
 5. PROJECT NUMBER;
 6. DATE TAKEN;
 7. CONSTRUCTION COMPANY;
 8. CONTRACT NUMBER.

1.31 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 notify the RE/COR verbally, and then with a written follow up.

1.32 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)
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

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