

Statement of Work  
Riverside National Cemetery  
Phase 5 Development

Project Number 901CM2041

## **1.0 BACKGROUND**

1.1 The National Cemetery Administration (NCA) is one of three Administrations within the U.S. Department of Veterans Affairs (VA) that provide for the delivery of services and benefits to Veterans. NCA is responsible for providing cemetery services to Veterans and other eligible persons pursuant to the provisions of the National Cemeteries Act of 1973 and other statutory authority and regulations (38 U.S.C. 2306, 38 U.S.C. Chapter 24, 38 CFR Parts 38-39.) NCA's responsibilities include the operation and maintenance of 131 national cemeteries, and the construction of new national cemeteries.

1.2 The NCA mission is to honor Veterans with final resting places in national shrines and with lasting tributes that commemorate their service to our Nation. The NCA provides burial space for eligible Veterans and family members; maintains the graves and their environs as national shrines in perpetuity; assists state and tribal organizations in providing burial benefits to Veterans through the Veterans Cemetery Grants Program; furnishes headstones and markers for graves in national, federally-administered state, tribal, and private cemeteries; marks Veterans' graves with a Government-furnished headstone, marker or medallion and provides Presidential Memorial Certificates in recognition of their service to a grateful nation; and administers grants for establishing or expanding state and tribal government veterans cemeteries.

1.3 Riverside National Cemetery is situated south of the city of Riverside and immediately to the west of the March Air Reserve Base. The cemetery is separated from the base by the I-215 "Escondido Freeway." It was originally established on 740 acres of former March Air Force Base land transferred from the Department of the Air Force in 1976. The Phase 1 project was completed in September 1978 and provided the first inventory of burial capability including buildings, committal shelters, entrance features, public assembly area, and supporting infrastructure; columbarium niches were introduced to the cemetery in later developments. In 2003, the Air Force transferred an additional 182 acres to the cemetery from the former March Air Force Base. The combined cemetery acreage is now 922 acres, making Riverside National Cemetery the 3<sup>rd</sup> largest national cemetery in terms of gross acreage but the #1 busiest cemetery by interment workload. This project will update the overall master plan for the cemetery to incorporate the additional 182 acres acquired in 2003 as well as various program changes that have occurred since the Master Plan was prepared in 1976.

1.4 Riverside National Cemetery This project provides for the Phase 5 Development of the Riverside National Cemetery serving a veteran population over 721,000 in five

counties of Southern California (Los Angeles, Orange, San Bernardino, Riverside and San Diego). Opened in 1978, Riverside National Cemetery quickly became one of the busiest VA national cemeteries by interment workload. In FY 2012, Riverside National Cemetery conducted a total of 8,119 interments and ranked 1<sup>st</sup> by interment workload within the VA system of 131 cemeteries. Burial of cremated remains at Riverside National Cemetery comprised 47.5% of the total interments in FY 2012 which is at par with the NCA national average. Of those 8,119 interments, cremation inurnments accounted for 3,853 (3,258 in-ground and 595 columbaria niches), a decrease of 193 (-4.8%) from FY 2011. With this interment rate NCA is projecting depletion of available columbarium niches by FY 2019.

## **2.0 PROJECT GOAL**

2.1 This project, the Phase 5 development, will provide for an additional 20,000 new full casket (pre-placed crypt) gravesites, 13,000 In-Ground Cremains gravesites and 10,000 columbaria niches.

This project will increase visitor parking and access to the administration building and relocate cortege staging lanes. The Dispatch Booth constructed in the median will be reconfigured in conjunction with the cortege and entrance roadway redesign at the cemetery front. The existing Dispatch Booth's sunshade overhang is often struck by high vehicles, and the Booth itself is too small, improperly located, and could better support the public if reconstructed in coordination with redirected general vehicular and cortege ingress lanes.

Since Riverside National Cemetery was never designed with a Public Information Center, the public is guided to the Administration Building for gravesite location information, cemetery maps, location of memorials, and public restrooms. Never designed for this traffic flow, the Administration Building has undergone several adaptations which underserve the public and staff.

This project will provide for upgrades and extensions of irrigation into newly developed areas. This project will construct a satellite maintenance facility allowing a separation of maintenance functions, as well as repairs and upgrades to facilities in the existing maintenance area, and increased security features such as higher fencing, improved security gate, and monitoring cameras with an active alarm system.

Committal Shelters will receive repairs to leaking roofs, repairs to uneven or broken concrete pavement, and a service road to separate the cortege lanes for shelters D and E (which currently cannot be used at the same time).

Riverside National Cemetery is one of three open national cemeteries that provide all burial options in Southern California. It is located approximately 70 miles east of Los Angeles National Cemetery (closed to all burial options in 1997) and 115 miles northwest of Fort Rosecrans National Cemetery in San Diego (closed to casketed burials in 1966).

2.2 The budget estimate for design and construction of the Phase 5 Development Project is between \$20,000,000 and \$50,000,000

2.3 The performance period for the design and construction of the project is 1,440 calendar days from Notice to Proceed (NTP). Construction will include an early turnover (ETO) section of approximately 3,000 preplaced crypts and associated site improvements 960 days from NTP.

### **3.0 SITE LOCATION**

3.1 Riverside National Cemetery is situated south of the city of Riverside and immediately to the west of the March Air Reserve Base. The cemetery is separated from the base by the I-215 "Escondido Freeway." It was originally established on 740 acres of former March Air Force Base land transferred from the Department of the Air Force in 1976. The Phase 1 project was completed in September 1978 and provided the first inventory of burial capability including buildings, committal shelters, entrance features, public assembly area, and supporting infrastructure; columbarium niches were introduced to the cemetery in later developments. In 2003, the Air Force transferred an additional 182 acres to the cemetery from the former March Air Force Base. The combined cemetery acreage is now 922 acres, making Riverside National Cemetery the 3<sup>rd</sup> largest national cemetery in terms of gross acreage but the #1 busiest cemetery by interment workload. This project will update the overall master plan for the cemetery to incorporate the additional 182 acres acquired in 2003 as well as various program changes that have occurred since the Master Plan was prepared in 1976.





5.2 This project will develop a Master Plan for the next 30 years of projected burial needs, prepare Construction Documents and construct additional gravesites and cemetery improvements on the existing cemetery in accordance with this scope of work. The Master Plan will develop a plan for three separate phases of ten years each. Cemetery improvements to existing facilities as listed below are also part of this scope of work.

#### **5.2.1. Interment Areas Phase 5 – Plan and Construct**

- Casketed Remains: approximately 20,000 pre-placed crypt full casket gravesites, exclude drainage piping under crypts
- Cremated Remains: approximately 13,000 traditional in-ground cremains and approximately 10,000 columbarium niches

#### **5.2.2. Master Planning**

- Provide planning for the next (3) 10-year burial periods of cemetery development. The interments indicated are for Phase 5. Assume similar interments for Phases 6 and 7.
- For phases 6 and 7, plan for the development of Memorial Walls consisting of 300 spaces per phase.
- Provide design for infrastructure and support services necessary for Phases 5-7 development and beyond.
- Provide planning for irrigation lake(s) and pumping and distribution system for Phases 5-7 development areas.
- Development of irrigation system needs to take into account connections with development beyond Phase 7.
- Provide for interconnection of existing irrigation systems with added lake irrigation system – loop mains to allow for irrigation during pumping station maintenance and repair.
- Identify and establish replacement spoils area.
- Provide planning for relocation of spoils area to eliminate impact to planned burial areas, while maintaining reasonable access to spoils by cemetery personnel.
- Provide planning for demolition of the abandoned water treatment plant on the south edge of the cemetery property.

#### **5.2.3. Phase 5 Development**

##### **5.2.3.1. Irrigation System**

- Plan irrigation lake(s) needed for Phases 5-7 of development and new irrigation pumping system
- Irrigation construction scope is only for 55 acre expansion and existing repairs necessary to integrate new system components.
- Irrigation pumping system and shall be independent of the remainder of the developed cemetery, but provide for cross connection as a backup system.

- Irrigation system shall be connected to the main system for the existing developed cemetery for backup functionality.
- Irrigation system shall include installation of added supply valve and feed line from existing source of supply of irrigation lakes
- Provide sprinkler collars on all new sprinkler heads
- For landscaped irrigation areas, do not utilize drip irrigation, as calcium in the water clogs these lines easily
- Irrigation controls shall be compatible with existing cemetery irrigation control

#### **5.2.3.2 NOT USED**

**5.2.3.3. Satellite Maintenance Facility** – Phase 5 development shall include the installation of a satellite Maintenance facility. The concept of operation is that this shall be a maintenance facility that houses the equipment and material needed to work in the Phase 5-7 development area. The intent is that this will serve as the staging area for maintenance staff that services the Phase 5-7 burial area and beyond. Maintenance staff shall report and park at the main Maintenance office area and transport to this area daily. Include the following features as part of this satellite maintenance facility.

- Equipment storage yard
- Covered and non-covered landscape materials storage bins
- Toilets and break room
- Small tools storage
- Irrigation system parts storage
- Covered Vehicle wash bay (may be used for after-hours equipment parking)
- Include marker receiving/staging area for entire cemetery
- Provide space for stone marker inscription work
- Poly liner storage space
- Trash disposal site (40 yard dumpster) with easy maintenance staff access

**5.2.3.4. Satellite Public Restrooms** shall be included in the Phase 5 development

#### **5.2.3.5 NOT USED**

#### **5.2.3.6 NOT USED**

#### **5.2.3.7 NOT USED**

#### **5.2.3.8. Cortege Lane Improvements**

- Install 8 new cortege lanes near the amphitheater.
- New Cortege lanes shall anticipate 30 vehicles per lane.



#### **5.2.3.9 NOT USED**

#### **5.2.3.10 NOT USED**

#### **5.2.3.11. Access Roads, Roadway System and Parking**

- Construction of roads, walks necessary for gravesite development zone in Phase 5
- Rework roadway at existing information booth at entrance. Provide capability for pull off for information booth
- New roadways to be 24' edge of curb to edge of curb
- Replace existing information booth. This is where the funeral corteges stop for directions to staging areas – existing structure is temporary structure, too short for full height commercial vehicles.

#### **5.2.3.12. Site Furnishings, Receptacles, Signage**

- Replace all signage to be uniform per NCA signage criteria
- Add Recycled water use site signs
- Provide standardized trash/flower/water station for new burial areas, with an option for replacement throughout the remainder of the site.

#### **5.2.3.13 NOT USED**

#### **5.2.3.14 NOT USED**

#### **5.2.3.15. Administration Building**

- Replace sagging interior ceiling structure
- Provide replacement HVAC system and controls. Ductwork has never been properly zoned or air distributed. Rooftop units were recently replaced, thus may be reused.
- Replace exterior wood slats under roof system.
- Replace interior wood ceiling system
- Provide sufficient roof insulation per VA criteria.
- Replace exterior glazing walls per VA Security requirements and Life Safety requirements.
- Evaluate the laminated wood beam roof support system, especially at the exterior. Beams have been attacked by termites and patched with putty. Ensure structural soundness
- Replace roof mounted HVAC equipment screens, wooden screens deteriorating. Consider metal screens to resemble wood
- Replace light fixtures inside and out.
- Provide 500 GSF of additional records storage space

#### **5.2.3.16. Committal Shelter Improvements**

- Replace roof structure for 6 committal shelters, above the laminated trusses (from the 4x4's and above)



- Demolish Shelter D
- Reinstall roof drainage system for reworked committal shelters – outfall below grade
- Replace exposed pebble aggregate floor in Committal shelters with slip resistant concrete.
- Clean/sandblast or resurface concrete columns
- Assess and repair as necessary the laminated roof trusses

#### **5.2.3.17. Landscape Architectural**

- For Phase 5 burial zones construct a variable width aggregate strip of at least 2' width behind curb with integral mow concrete strip. This shall be similar to that in Phase 4 areas. Consider putting all water stations and sprinkler valves in this aggregate strip.

#### **5.2.3.18. Spoils Relocation**

- Remove spoils from Phase 5 burial sections.
- Consider use of existing spoils for installation of new berms
- Identify and provide access to new spoils location outside any planned burial areas (Phases 5-7).

#### **5.2.3.19. Global Positioning System**

- Provide complete functioning GPS/GIS system for tracking and monitoring burials. The system shall comply with latest NCA spec and include: base station, receiver/transmitter and antenna, ARC GIS workstation located at the maintenance facility, handheld rover units and training for cemetery staff. This is a summary only; complete spec defines comprehensive requirements.
- Provide coordinates and documentation in NCA approved database for all new burial areas developed under this contract. Existing cemetery sections are being surveyed and compiled under a separate contract.

#### **5.2.3.20. Record drawings**

- Prepare Record Drawings (AS-Builts) for all constructed new improvements.

### **5.3. DESIGN PROCESS**

The scope of services to accomplish the project includes furnishing all labor and materials to prepare the predesign studies, master plan, schematic design, design development and construction drawings and specifications for all project elements and an estimate of construction cost in accordance with this statement of work. A separate statement of work (Appendix A) covers construction management and inspection services.

The Early Turn Over (ETO) design shall start immediately upon the completion and acceptance of MP-3 and run independent and concurrently with the design of the balance of the project. ETO design shall be completed 540 calendar Days after NTP.

The Master Plan shall include cost estimates for all future phases of development based on burial projections provided.

This SOW identifies specific facilities and elements to be included in the Master Plan for Riverside National Cemetery and in the Phase 5 Development, as well as general guidance on submission requirements. Specific information on submission requirements for deliverables is prescribed in VA Program Guide PG-18-15, Volume D, A/E Submission Requirements for National Cemetery Projects (Dec 2011) (<http://www.cfm.va.gov/til/ae/aesubcem/>).

Architect-Engineer (A/E) services will consist of those services performed by the successful Offeror, Offeror's A/E, their employees and sub-consultants as required to prepare the documents.

The Offeror's A/E is responsible for the quality, accuracy and completeness of the documents and is required to meet or exceed the scope of this document. Requirements contained herein are minimums; all work should be at the level of accepted work for professional disciplines performing this type of work. The Offeror's A/E is responsible for coordinating the documents to eliminate errors and omissions and for producing a complete set of drawings in accordance with standard professional practices. Complete and accurate coordination between the disciplines and quality control of sub consultants' work is required. All drawings will require a professional license seal and signature by the discipline responsible for the work.

## **5.4 DESIGN PHASE**

### **5.4.1 Purpose:**

- The purpose of this phase is to develop construction documents for the Phase 5 Development at Riverside National Cemetery for review and approval by NCA. Design services shall consist of updating the master plan for the Cemetery including Phases 5-7 (MP – 1, MP – 2, MP – 3, MP – 4, & MP – 5), preparation of schematic design (SD – 1 & SD – 2) and design development drawings (DD – 1 & D – 2), and construction documents.(CD – 1, C – 2, & Construction Set) for the Phase 1 program requirements. The master plan shall be prepared in conformance with the findings and recommendations brought forth through the environmental assessment process currently underway by VA. VA considers the total environmental approach a necessity to good master planning. The planning process must be founded upon a sound understanding of the features and dynamics of the environment. The cemetery site is composed of a variety of components: topography, soils, plant communities, wildlife habitats, riparian features, etc. Each component must be understood and interpreted as a contributing element to the natural functioning and development of the site. The existing landscape must be an integral part of the development plan.

#### **5.4.2 Goal:**

- The goal of the master planning effort is to provide an orderly, professional, and aesthetic development plan for expansion of the cemetery into the undeveloped site. The completed master plan will consist of the required drawings, details, studies and reports of all the elements listed in the Statement of Work. The completed master plan (MP - 5) should be sufficiently detailed to enable the Department of Veterans Affairs to proceed directly into the preparation of Design Development Drawings for future development phases of the cemetery. For this project, the draft master plan, at schedule milestone MP - 3, shall be sufficient for the A/E to proceed to Design Development and Construction Documents for all of Phase 5.

#### **5.4.3 Topographic Survey:**

- VA shall provide a topographic, boundary, and site surveys for the cemetery property. Finer resolution of topographic surveys shall be the responsibility of the Offeror.

#### **5.4.4 NEPA Documentation – Environmental Compliance.**

- VA is in the process of preparing environmental documentation for NEPA compliance that is necessary for the Phase 5 Development project. The Offeror shall be responsible for environmental compliance under NEPA. The EA will be complete in pursuant to the National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFR] 1500--1508), and VA regulations (38 CFR 26.4 [a]). Design of the master plan will subsequently document the findings and recommendations of the EA. Development of the national cemetery must be in compliance with applicable federal statutes, Executive Orders, and state and local regulations establishing environmental standards. The master plan shall accommodate any biological and/or cultural resources including historical, archeological, architectural and landscape resources that were identified during the EA process. Appropriate mitigation measures outlined in the Final EA will be addressed and incorporated in the Master Plan.

#### **5.4.5 Historic Analysis - Section 106 Compliance:**

- VA is in the process of preparing documentation for Section 106 compliance (NHPA) for the new Master Plan and current Phase 5 Development project. Riverside is eligible for listing in the National Register of Historic Places, and is subject to Section 106 of the National Historic Preservation Act (P.L. 89-665, as amended). The A/E shall be responsible for incorporating all findings and stipulations required by the State Historic Preservation Officer (SHPO) into the final design of the master plan.

#### **5.4.6 Geotechnical Investigation:**

- VA shall provide all geotechnical surveys and tests necessary to perform the professional work required by this scope of work.

#### **5.4.7 Master Plan**

- The Offeror shall prepare a set of master plan drawings illustrating the overall design concept with all elements or features of the master plan as stated in this Statement of Work. Drawings will be developed to the Master Plan 5 (MP5) level of detail as prescribed in VA Program Guide PG-18-15, Volume D, A/E Submission Requirements for National Cemetery Projects (Dec 2011) (<http://www.cfm.va.gov/til/ae/aesubcem/>). At the conclusion of the Master Plan 3 submittal (MP3), the A/E will continue work on three tracks: (1) design development and construction documents for the current gravesite expansion project, (2) ETO construction documents and (3) final Master Plan documentation for the full site.
- Design criteria contained in the NCA Facilities Design Guide will give the A/E an understanding of the unique requirements of cemetery operations and of each of the Elements or Features that make up a national cemetery. (<http://www.cfm.va.gov/til/nca.asp>) Detailed Functional Requirements, Relationship diagrams and Narrative are described. Minor exceptions and improvements to the information provided in the design guide will be provided to the A/E during the initial Master Planning sessions. VA will provide a building program detailing the square foot requirements for enclosed structures to be constructed and renovated in the Master Plan.
- Originality and imaginative design relationships between site and structures, vehicular and pedestrian areas, visual elements, open and screened areas, and their relationship to each other should be combined to produce a plan that is both functional and aesthetic with due consideration given to economic cost factors. Materials used should express strength and permanence, should reflect the regional vernacular, and should be consistent with and complementary to the style of the existing cemetery facilities. The intent is for all new construction to utilize the existing palette of materials and colors.
- The location, orientation and design of all buildings and plantings shall consider climatic conditions to reduce heating and cooling requirements. The A/E will consider the impact of prevailing wind, sun and precipitation patterns on the functional design elements.
- The A/E shall follow VA guidance on Energy Efficiency and Sustainable Design as contained in topics 15 and 16 of VA Program Guide PG-18-3, Design and Construction Procedures. The design of all new VA buildings must comply with mandatory Energy Policy Act (EPACT) of 2005 requirements and employ sustainable design principles. The A/E will utilize the Guiding Principles checklist for Green globes – New

Construction ([http://www.cfm.va.gov/til/sustain/GPChecklist-GG- NC.docx](http://www.cfm.va.gov/til/sustain/GPChecklist-GG-NC.docx))

- The A/E should plan and design the cemetery landscape following Xeriscape principles, consistent with the existing development. NCA is committed to considering alternatives in landscape design that will conserve scarce water resources, yet deliver an acceptable and attractive living landscape memorial to the veterans interred there.
- Accessibility. All features of the development (except gravesites) shall be readily accessible to and usable by people with disabilities, in compliance with the Americans with Disabilities Act-1990, Architectural Barriers Act of 1968, as amended, and local accessibility requirements. To achieve compliance, the National Cemetery Administration uses as its standard for building and facility design the Architectural Barriers Act Accessibility Standard (ABAAS). The standards are found at the following URL: <http://www.access-board.gov/ada-aba/final.pdf>. It is NCA policy to make all cemetery structures accessible without the use of special facilities for the disabled. The A/E is responsible for checking to see whether there are local accessibility requirements to be considered. The criteria of these ABAAS should be considered a minimum in providing access for the physically disabled. Dimensions that are not stated as “maximum” or “minimum” are absolute. All dimensions are subject to conventional industry construction tolerances except where the requirement is stated as a range with specific minimum and maximum end points.
- Outline specifications prescribing the major materials used in the design; e.g., building walls, paving materials, pipe materials, etc., are to be noted on the master plan drawings.

#### **5.4.6 Design Development and Construction Documents:**

- The preparation of design will include all work activities to support a design for the cemetery expansion and improvements in accordance with the updated cemetery Master Plan. The A/E will become familiar with the PG- 18-15, Volume D, A/E Submission Requirements for National Cemetery Projects and provide submissions that meet or exceed the stated requirements. A/E services will include all of the design elements/disciplines needed to accomplish this phase of the project and meet the submission requirements prescribed in PG-18-15 Volume D for Design Development (DD – 1 & D – 2) and Construction Documents (CD – 1, C – 2, & Construction Set)

## **6.0 PHASE 5 DEVELOPMENT CONSTRUCTION**

Construct the Phase 5 Development and supporting infrastructure in accordance with the final VA-approved design. Construction shall include the delivery of an early-turnover section of approximately 3,000 pre-placed crypts and associated infrastructure 960 days after NTP.

## 7.0 DESIGN CRITERIA

7.1 In addition to specific design criteria contained in the Statement of Work, the following design and general guidance applies to the project. It can be accessed from the VA web site at the following URL:

- |       |   |   |
|-------|---|---|
| 7.1.1 | VA Program Guide PG-18-3, <b>Topic 1</b> - Codes, Standards and Executive Orders (Sept 2013)                                  | <a href="http://www.cfm.va.gov/til/cPro.asp">www.cfm.va.gov/til/cPro.asp</a>  |
| 7.1.2 | VA Program Guide PG-18-3, <b>Topic 4</b> - Foundation Drainage (April 2001)   | <a href="http://www.cfm.va.gov/til/cPro.asp">www.cfm.va.gov/til/cPro.asp</a>  |
| 7.1.3 | VA Program Guide PG-18-3, <b>Topic 15</b> - Energy Efficient and Sustainable Design Policy for VA New Construction (May 2006) | <a href="http://www.cfm.va.gov/til/cPro.asp">www.cfm.va.gov/til/cPro.asp</a>  |
| 7.1.4 | VA Program Guide PG-18-3, <b>Topic 16</b> - Sustainable Buildings Policy for VA Renovation and New Construction (May 2006)    | <a href="http://www.cfm.va.gov/til/cPro.asp">www.cfm.va.gov/til/cPro.asp</a>  |
| 7.1.5 | Guiding Principles Checklist for Green Globes-New Construction  | <a href="http://www.cfm.va.gov/til/sustain/GPChecklist-GG-NC.docx">http://www.cfm.va.gov/til/sustain/GPChecklist-GG-NC.docx</a> |
| 7.1.6 | Handbook H-18-8, Seismic Design Requirements (August 2013)  | <a href="http://www.cfm.va.gov/til/etc/seismic.pdf">http://www.cfm.va.gov/til/etc/seismic.pdf</a>                               |
| 7.1.7 | NCA Facilities Design Guide Section 5 Design Criteria (May 2010)  | <a href="http://www.cfm.va.gov/til/nca/NCADesignGuide.pdf">http://www.cfm.va.gov/til/nca/NCADesignGuide.pdf</a>                 |
| 7.1.8 | VA Signage Design Guide Chapter 12, National Cemetery Signs (December 2012)   | <a href="http://www.cfm.va.gov/til/signs/Signage1_2-Cemetery.pdf">http://www.cfm.va.gov/til/signs/Signage1_2-Cemetery.pdf</a>   |

## 8.0 VA RESOURCES

VA shall provide pdf copies and CADD files (where available) of the following drawings from previous projects at Willamette. NCA does not guarantee the accuracy of any information contained therein.

- A. Aerial Survey Drawings
- B. Gravesite Development project Construction Drawings
- C. Crypt Installation project Construction Drawings
- D. Columbarium Expansion project Construction Drawings
- E. Facility Condition Assessment Deficiencies (see 5.2.3.14 above)
- F. NCA will provide space planning requirements for the structures to be renovated and/or replaced (Administration Building & Maintenance Building)
- G. VA will provide customer representation, and access to maintenance staff and engineering staff as needed.

- H. VA will provide a separate funding obligation to be used for crypts to be installed by the construction contractor. Precast concrete crypts will be itemized and invoiced as a separate CLIN in the construction contract.

## 9.0 DELIVERABLES AND MILESTONE SCHEDULE

The table below is a summary of submission milestones and their associated submission components which are further described in PG-18-15, Volume D.

Design Phase	Components of Submission	Review Format
<b>MP 1</b>	Meeting agenda Site visit by A/E and VA team Topographic, utility & landscape survey Site characteristics report Geotechnical soil survey Evaluation of Environmental Impact Statement Status of site with respect to historic preservation requirements Presentation of concept studies (minimum 3) Discussion of concept studies Cost estimate Other Predesign Studies	On-site meeting of VA and A/E team Presentations by A/E Group discussions Selection of one master plan concept
<b>MP 2</b>	Record of team meeting including: Alternatives as presented at meeting Selected master plan concept, as modified at meeting Cost estimate for selected master plan concept Update of previously submitted documents	NCA/CFM briefing for management at VA Central Office (VACO) Written comments to A/E
<b>MP 3</b>	Draft master plan and schematic block plans for Phase 1 buildings (development of selected alternative) Updated reports, calculations, and narratives Cost estimate	Internal VA review A/E meeting at VACO Written comments to A/E
<b>MP 4</b>	Final master plan and schematic drawings for all disciplines with all comments incorporated Updated reports, calculations, and narratives Environmental considerations and mitigation requirements Cost estimate Color boards	Internal VA review A/E presentation to management A/E meeting with VA Written comments to A/E
<b>MP 5</b>	Final (100%) master plan with all comments incorporated - Mylar originals CAD files	Record submission only No comments
Design Phase	Components of Submission	Review Format



<b>DD 1</b>	Design Development documents based on approved Internal VA review Schematic Design or master plan Updated reports and narratives Cost estimate Updated color boards	A/E meeting with VA Written comments to A/E
<b>DD 2</b>	- Final Design Development drawings, specifications and cost estimate with all comments incorporated- Updated reports and narratives- Updated color boards- Cost estimate	- Internal VA review- A/E meeting with VA- Written comments to A/E
<b>CD1</b>	90% Construction Documents Final reports and narratives Final color boards Cost estimate	Internal VA review A/E meeting with VA Written comments to A/E
<b>CD2</b>	100% Construction Documents Final reports and narratives Final color boards Final cost estimate	Final internal VA review for resolution of prior comments Written comments to A/E
<b>BID</b>	Final Construction Documents, signed and sealed Electronic files for drawings and specifications	Record submission only No comments
<b>Record docs.</b>	Record documents printed on Mylar CAD files for drawings Project Manual Warranties	- Record submission only

The table below is a summary of project milestones, estimated durations and planned timeframes.

<b>Milestone</b>	<b>Estimated duration</b>
Notice to Proceed	
Master Plan, Schematic Design & Predesign Studies	6 months
ETO Design Development (DD)	3 months
ETO Construction/Bid Documents (CD)	3 months
Design Development (DD)	6 months
Construction/Bid Documents (CD)	6 months
Construction ETO	12 months
Phase 1 Construction	18 months

## 10. GENERAL SUBMITTAL STANDARDS & REQUIREMENTS

Each submission will meet the specific requirements stated in PG-18-15, Volume D, A/E Submissions for National Cemetery Projects.

### 10.1 Drawing Sheets

- All plans are to use the standard VA/NCA title block. VA will provide an electronic version if the A/E requires it. Sheet size is 30" x 42".

- All drawings shall be bound, along the left margin, into sets in the order of the drawing symbol list contained in this scope. At each submittal, the set of drawings will have a cover sheet. The binding must not obscure any information on the drawings.
- Each sheet as well as all materials submitted will be clearly labeled above the title block, what submission it is, corresponding to the required submissions in this scope of work and PG-18-15, Volume D, A/E Submissions for National Cemetery Projects, i.e., "Master Plan 3," "Design Development 2" submittal, "90 percent Construction Documents Submittal," etc. This label will be changed after each review and removed prior to printing the bid sets.

### **10.2 *Drawing Cover Sheet***

- Each set of drawings will have a cover sheet which indicates: VA project title, VA project number, index of drawings in the set, names, addresses and phone numbers of all associated A/E firms, vicinity map, site location map, cemetery map showing project location and other pertinent project information. A complete legend of drawing abbreviations and drafting symbols for all disciplines will be included either on the cover sheet or on a second sheet immediately following the cover.

### **10.3 *Graphic Standards***

- Drawings shall have graphic scales, north arrow (either true north or plan north; orientation shall be consistent throughout drawings unless approved by the VA Project Manager [PM]), title block, and key plan clearly identifying the drawing component within the overall plan. Each drawing, booklet, and other supporting submittal, including cover sheets, shall be clearly and consistently identified throughout the design process with the project title, location, building, phase, section, and segment. Each sheet will be clearly labeled above the title block, what submission it is corresponding to the required submissions in this scope of work. Each sheet will have a key map for locating and orienting individual drawing sheets to the whole site.
- Plans must clearly demonstrate what new work is and what is existing and what is to be demolished. New work must be graphically bolder than existing work. For example, existing items to remain may be screened, with new work shown solid. Demolition work shall be shown by dashed lines.
- Drawings using match lines must not overlap information. All information must stop at the match line and resume at the corresponding match line.
- Detail sheets should be organized logically and present the material intended in an orderly way, for example, head, jamb and sill should be arranged as such from top to bottom, not randomly placed on the sheet as

space allows. Items with plan, front and side views should be arranged in that context to one another. Each detail must be clearly labeled and the scale indicated. There should be one door schedule and one window schedule for all buildings in the project. There should be a color and finish schedule for each building, located on the same sheet with the respective floor plan.

- A comprehensive legend of the abbreviations and symbols used on all of the drawings shall be provided on the cover sheet or immediately following the cover sheet.

#### **10.4 Computer Aided Design and Drafting (CADD)**

- The A/E shall supply all drawings in AutoCAD format in accordance with the United States National CAD Standard, Version 4.0 © National Institute of Building Sciences 1999- 2007. The standard includes presentation graphics, level/layer assignments, electronic file naming and standard symbology. These standards are available at the Internet website: <http://www.nationalcadstandard.org/H>.
- If the Architect/Engineer office performs their project design work in two different CADD formats, the electronic file compact disk submission to the National Cemetery Administration shall be in only one unified CADD format. The conversion and the integrity of the drawings is solely the responsibility of the Architect/Engineer. All CADD files created for this project shall be the property of the Department of Veterans Affairs and the National Cemetery Administration.
- The external label for the electronic submittal shall contain at a minimum:
  - VA Project Number
  - Format and version of the operating system software used
  - Name and version of utility software used for preparation (e.g., compression/decompression, if applicable) and copying files to media
  - Sequence number of the digital media
  - A list of the filenames on the digital media, as space on the label permits.

#### **10.5 Reports/ Calculations/ Studies/ Analyses/ Estimates/ Specifications**

- Submit 8 ½" x 11" copies of all required calculations, cost estimates and specifications. All letter reports will be labeled with the VA project name, VA project number, name(s) of A/E firm(s), date and title of the report or estimate. Final submittal of specifications shall be in Microsoft Word format on compact disc. Foldout sheets, up to 11" x 17", for graphics may be incorporated in the reports.
- Specifications shall be prepared using National Cemetery Administration (NCA) Master Construction Specifications. Submissions shall show

changes to master by using the "Track Changes" function. Each submission shall indicate changes from the previous submission, not all changes to the master. Specifications submitted at the end of each phase (not for each review) shall include all changes.

- The Offeror shall submit minutes of meetings and teleconferences with VA and other contractors and agencies.
- All submitted documents shall be updated as per written responses in a mutually agreeable electronic review and correction tracking system to reflect review comments from previous phase and further development. The A/E shall verify that all changes based on the review of the previous phase have been entered into the electronic review and correction tracking system and approved by the VA PM.
- During the Construction Period, submit daily inspector's reports as outlined in the Statement of Work for Construction Management and Inspection Services. (Appendix A.)

#### **10.6 Distribution of Design Submittals by A/E**

- Recipients:

VA STAFF	SETS of DRAWINGS	COST ESTIMATE	REPORTS/ CALCS.	SPECS	COLOR BOARDS
CFM Project Manager	2 half-size	1	1	1	1
Pacific District Engineer	1 half- size, .pdf on CD Final dwgs in .dwg and .pdf	1	1	1	1
NCA Design & Construction Service	1 full-size, 1 half-size	1	1	1	1
NCA Cemetery Director	1 full-size	1	1	1	1
Chief, Cemetery Development	1 full-size, 1 half-size	1	1	1	1

- Submittal addresses and contact information:

VA STAFF	DELIVERY ADDRESS	PHONE /FAX/ E-MAIL
COR/ CFM Project Manager:	Department of Veterans Affairs Construction & Facilities Management 425 I Street, NW Suite 6W417B Washington, DC 20001 Attn: Charles Bolen	202-632-5760 direct  <a href="mailto:charles.bolen@va.gov">charles.bolen@va.gov</a>

Pacific District Engineer:	Department of Veterans Affairs Pacific District, Oakland Office (775) 1301 Clay Street, 1230 North Oakland, CA 94612-5209 Attn: Cliff Schem	(510) 637-6281 - direct     <a href="mailto:clifford.schem@va.gov">clifford.schem@va.gov</a>
NCA Design & Construction Service	Department of Veterans Affairs National Cemetery Administration Design & Construction Service 425 I Street, NW Washington, DC 20001 Attn: Peggy Jensen	202-632-5895 – direct     <a href="mailto:margaret.jensen@va.gov">margaret.jensen@va.gov</a>
NCA Cemetery Director:	Department of Veterans Affairs Riverside National Cemetery 22495 Van Buren Blvd. Riverside, CA 92518 Attn: Peter Young	951-653-8417 – direct     <a href="mailto:peter.young@va.gov">peter.young@va.gov</a>
Chief, Cemetery Development & Improvement Service:	Department of Veterans Affairs Cemetery Development & Improvement Svc Indianapolis Regional Office (495) Minton-Capehart Federal Building 575 North Pennsylvania Street Indianapolis, IN 46204 Attn: Glenn Madderom	(317) 916-3797 – direct     <a href="mailto:glenn.madderom@va.gov">glenn.madderom@va.gov</a>

## 11.0 WORK COORDINATION AND REVIEWS

The CFM Project Manager (PM) is the liaison with the Offeror. All work will be coordinated through the PM.

Each submittal will be reviewed by VA and comments provided to the Offeror according to the agreed schedule (typically 2-3 weeks). All comments from various VA entities and changes will be coordinated through the CFM Project Manager. If the Offeror makes changes or modifications based on comments from VA entities other than the Project Manager, the Offeror is “at-risk” and at their own expense will revise the change(s). The Offeror must respond in writing to all comments within ten (10) calendar days of receiving VA comments. Subsequent work and changes made shall reflect the VA comments and the outcome of the review.

- END -