

**Department Of Veterans Affairs
TVHS, Nashville Campus
Requirements for A/E Services
Project 626-17-501
Reconfigure Sterile Processing Supply Scope Processing**

I. GENERAL SCOPE OF WORK

The consultant shall provide all necessary architectural and engineering services as required to prepare complete contract drawings, specifications, technical reports, and cost estimates, including (optional) services throughout construction to completely reconfigure and renovate approximately 1000 square feet of the Sterile Processing Service (SPS) space in the Basement of Building 1 at the Nashville Campus of the Tennessee Valley Healthcare System, 1310 24th Ave South, Nashville, TN 37212. The **“Reconfigure Sterile Processing Supply Scope Processing” Project** will reconfigure the space and effect adjacent spaces provide proper scope processing flow from contaminated to clean spaces, as well as scope storage. Entries into the adjacent Decontamination and Supply Receiving will be affected and reconfigured.

Professional disciplines include, but are not limited to architectural, mechanical, fire protection, plumbing, electrical, communications, access controls, and industrial hygiene.

II. STATEMENT OF PROJECT OBJECTIVES

It is the intent of the Department of Veterans Affairs to have the A/E fully survey, investigate, and document the existing space, and all systems necessary in order to gain the knowledge and insight necessary to prepare quality, accurate documents in a professional manner to accomplish the following:

- A. Reconfiguration will absorb unused rooms and adjacent offices to maximize space, increase efficiency, and optimize processes to provide proper scope processing flow from contaminated to clean spaces, as well as proper scope storage.
- B. Project will provide proper access to the Automated Endoscopic Reprocessor (AER- Medivator Scope Washer).
- C. Project will reconfigure entries into the adjacent Decontamination and Supply Receiving areas for seamless integration of newly renovated areas for Scope Processing.
- D. Improve reliability, stability, monitoring, control, and energy efficiency. Integrate native BACnet Direct Digital Controls (DDC) controls with existing Alerton or Honeywell DDC frontend systems. Also, use occupancy sensing in select areas for flow and temperature setback. Provide tight control of temperature, pressure relationships, and humidity, providing a quality processing environment.
- E. Design of spaces will incorporate contemporary design and operational philosophies for sterile processing and supply.

III. JUSTIFICATION

- A. There is no access to the Automated Endoscopic Reprocessor (AER - Medivator Scope Washer) from the clean side. Entry/Exit from the current scope wash room is through the Decontamination room only. After cleaning, the scopes must be enclosed and protected to exit back through the dirty/decontamination room to the corridor. This condition violates current design guide requirements.
- B. Currently there is no clean scope storage area/alcove.
- C. The adjacent cart wash room is obsolete and not being used. It will be reconfigured, along with adjacent office(s) to provide proper flow from the dirty to clean, as well as storage.

IV. STATEMENT OF A/E TASKS

- A. The A/E shall furnish all services for complete design development documents including construction documents, and construction period services as specified in this Statement of Work.
 - 1. Necessary site survey work and evaluation such as verifying existing conditions, verifying record drawings, and verifying and analyzing utility systems shall be accomplished in conjunction with preparation of Design Development. A/E shall furnish documentation and drawings of these findings, and address deficiencies in the design process.
 - 2. The complete site survey work shall include a thorough investigation of existing conditions to accurately document and convey space dimensions for measured drawings, all utilities for affected areas, and utilities that traverse through affected areas, typical construction type and variations, and finishes. This information provides the necessary base drawings for the Schematic Development phase of Design Development.
 - 3. Utility system verification shall include, but not be limited to, the necessary testing, adjusting, and/or balancing (TAB), temperature testing/surveillance, visual inspection, DDC frontend trending and other innovative measuring and testing methods of affected systems to ascertain the existing operating and performance conditions that will impact the design and construction process. Systems that are insufficient in capacity or are no longer supported by OEM parts shall be considered for expansion and/or replacement. Document existing conditions, proposed alternatives, and corrective actions.
- B. The A/E shall incorporate Energy efficiency and cost savings shall be considered in all design decisions. Design to applicable sections of the TVHS Energy Requirements and Design Guide for specific energy guidance. Design shall incorporate, but not be limited to:
 - 1. Upgrade SPS room pressure monitoring system and optimize interface with supply/exhaust air valves, AHU-3A Supply and Exhaust fan Variable Frequency Drives (VFD's). Research best practices for Supply/Exhaust tracking to maintain static pressures in SPS spaces.
 - 2. All components of the supply, ventilation, and exhaust systems will be evaluated and upgraded to meet hospital standards, increase functionality, energy efficiency and building envelope maintenance. Include DDC and optimization controls. Whenever possible, exhaust systems shall be converted to return.
 - 3. Use non-priority native BACnet controls. Integrate new Direct Digital Control (DDC) controls with existing Alerton or Honeywell DDC front-end systems. Include DDC riser diagrams, points matrix/listing and project specific sequence of operations based on TVHS standard sequence of operations. Replace VAV boxes with properly sized supply/exhaust air valves, if needed. Upgrade existing pneumatic controls to new DDC controls in SPS spaces
 - 4. Coordinate this project with the Replace AHU-3A for Sterile Processing Supply Project, 626-17-201, (such as terminal units, static pressure sensors, sealing of SPS envelop, DDC and frontend integration, etc.)
 - 5. When observed, include design for replacement or repair of duct work/duct access doors/access panels that are leaking air. Duct work leakage objective is to obtain ASHRAE Standard 90.1, Seal Class A on major supply lines and Seal Class B on return and exhaust lines.
- C. The A/E shall provide cost estimation, project scheduling, bid period and construction period services as further described in the contract.
- D. Design shall meet VA needs, VA space criteria, VA design alerts, and VA design standards while including applicable regulations and established VA standards, guidelines, criteria and design alerts.

- E. The A/E shall form a design team consisting of key designers and VA personnel, including affected users and services, and conduct meetings to accomplish a cohesive design that addresses facility issues and concerns. Design team meetings shall be held on site in conjunction with each phase of design and each submission. Additional meetings with individual user groups will be necessary to gather information and produce an effective design.
- F. The A/E shall provide multiple design concepts of the building interior as part of the Schematic Design phase. The AE shall present the concepts to the VA Design Team and fully discuss the merits (pros and cons) of each. The design team will select the concept that will be fully developed during Design Development (DDs) and Construction Documents (CDs).
- G. Design shall include applicable regulations and established standards for the proper procedures during abatement practices of asbestos containing material (ACM).
- H. A/E shall develop and execute a Quality Assurance (QA) plan that demonstrates the team approach and methodology for design review and improvements, including well documented comments / issues and resulting corrections. The QA plan shall be submitted to the VA along with the project schedule and shall describe each QA task that will be taken during the development of the various design submission packages. The design QA effort shall be led by a senior AE designer and the QA team shall include an architect and a senior engineer that is not performing actual design work on the project. Completion of each QA task shall be initialed and dated by the responsible QA team member. A 100% completed QA review shall be submitted with each AE design submission, including the final construction document package submission.
- I. The A/E shall provide bid document preparation in quantities as specified in the contract. VA shall distribute to prospective bidders and handle construction procurement.
- J. The A/E shall provide design and construction period services. Changes in personnel from those who are proposed are strongly discouraged and should only be made out of absolute necessity. Any personnel changes must be approved in writing by the Contracting Officer. The registered individuals who will stamp the completed documents shall accomplish design work.
- K. A/E will coordinate with leading industry equipment manufacturers/vendor(s) to insure proper layout and support of equipment according to manufacturer's requirements. However, design drawings and specs shall be generic to promote fair and open competition.
- L. Current facility planning has yielded a construction budget with a magnitude of \$250,000.00 to \$500,000.00. Estimating and cost control shall be a part of every design phase and submission.
- M. Interior design shall create a warm healing environment through the use of functional space planning, natural materials/finishes and accent lighting while promoting dignity in a modern healthcare environment.

V. BASIS FOR DESIGN

- A. Department of Veterans Affairs standards may be obtained from the Internet at <http://www.cfm.va.gov/TIL/>.
- B. Department of Veterans Affairs Design Manuals. <http://www.cfm.va.gov/til/dManual.asp>
- C. Compliance with the Physical Security Design Manuals for VA Facilities. <http://www.cfm.va.gov/TIL/spclRqmts.asp>.
- D. Comply with VA HVAC Design Guidelines at <http://www.cfm.va.gov/til/dManual.asp>. Indoor air quality requirements must be met / maintained, such as outside air percentages, air changes / CFM, and humidity. Design shall maintain building envelopes to prevent moisture infiltration and possible mold growth.

- E. Comply with VA TIL, PG-18-3, Design and Construction Procedures
<http://www.cfm.va.gov/TIL/cPro.asp>
 - a. Topic 1 - Codes, Standards and Executive Orders
 - b. Topic 2 - Drawings
 - c. Topic 15 - Energy efficient and sustainable design policy for new construction
 - d. Topic 16 - Sustainable buildings policy for new and Renovation construction
- F. Comply with VA TIL, PG-18-15, AE Design Submissions and Review.
<http://www.cfm.va.gov/til/aeDesSubReq.asp> (Click Vol. C Minor and NRM Projects).
- G. Comply with VA TIL, PG-18-2 Design Guide, 285 Sterile Processing Service and VHA DIRECTIVE 1116(2), dated 03/26/2016.
- H. The SPS Design Guide is available under Resources.
<https://vawww.vha.vaco.portal.va.gov/sites/DUSHOM/10NC/RME/default.aspx>
- I. Any deviation from project requirements, standards or specifications shall be requested in writing and approved by VA. The deviation request shall include item for which deviation is requested and the reason or justification for deviation.
- J. New rooms and partitions shall be designed to 40STC. This includes in-wall components such as doors, frames, boxes and glazing.
- K. Comply with TVHS Energy Requirements and Design Guide (revision September 2014, attached). See ASHRAE 90.1-2010 for energy requirements.
- L. Insure proper life safety and VA accessibility requirements. Code Analysis will be clearly defined on the Index Sheet of the Construction Documents. There shall be a Stamped Life Safety sheet.
- M. The awardee shall design within the construction budget provided at the time of contract award. The A/E design and estimate shall identify **20** percent of the total construction budget as viable deductive construction alternates by areas of work and/or phases. This will require individual estimates by clearly defined easily deductible areas or work.
- N. Comply with current applicable state, local, and federal codes, requirements and standards as well as codes/standards from other recognized authoritative bodies such as The Joint Commission. Other recognized bodies include but not limited to; Associated Air Balance Council (AABC), American Concrete Institute (ACI), Acoustical and Insulating Materials Association (AIMA), American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE), American Society of Mechanical Engineers (ASME), American Society for Testing and Materials (ASTM), Gypsum Association (GA), International Building Code (IBC), National Electric Code (NEC), NFPA, National Environmental Balancing Bureau (NEBB), International Plumbing Code (IPC), OSHA, Sheet Metal and Air Conditioning Contractors' National Association (SMACNA), and Uniform Federal Accessibility Standard (UFAS), & American Barriers Act (ABA) .
- O. Design shall consider industry standards and best practices, as well as facility standards, incorporating them to arrive at optimal design solutions.

VI. DETAILED SUBMISSION REQUIREMENTS

Program Guide PG-18-15, establishes the guidelines for the A/E submissions. Design shall be performed and submitted in accordance with VA A/E Submission Instructions for Minor and NRM Construction Program. Refer to (<http://www.cfm.va.gov/til/aeDesSubReq.asp>). These guidelines indicate a level for submission compliance, which may not be adequate for certain, types of design. In some instances in which critical decisions need to be made, sufficient and relevant information has to be provided timely in order for the design to progress to meet certain milestone dates. The level of applicability of the program guide depends upon the scope of work and the exclusions, which are herein specified. Questions in regards to the applicability of specific requirements shall be resolved with the COR prior to any submission deadline. Where "days" are stated, this refers to "calendar" not "work" days.

- A. At each submission, all drawings and support material shall be dated and appropriately labeled above the title block:

Work Element	Copies	Duration
Design Kick-off Meeting		1 Day
Schematic	2	24 Days
Gov't Review		5 Days
Design Development 1	2	21 Days
Gov't Review		5 Days
Design Development 2	2	21 days
Government Review		5 days
Construction Document 1	2	21 Days
Gov't Review		5 Days
Construction Document 2	2	18 Days
Government Review		5 days
Final Documents	4	7 days
Total		138 Days

- B. VA submission review comments may be verbal, noted directly on review sets, or written list. The A/E shall be responsible for compiling and addressing review comments. A/E shall produce and distribute meeting notes or minutes for VA review immediately after each submission review meeting.
- C. In addition to the deliverables in the Requirements for A/E Design Submissions in the VA Technical Information Library <http://www.cfm.va.gov/ti/aeDesSubReq.asp>, please provide the following:
- a. A/E furnish a separate stamped Life Safety sheet with each submission
 - b. A/E QA mark-ups with each submission
 - c. A/E filled out checklists with each submission (see Program Design Guide, PG-18-15, Vol. C)
- D. For each submission, furnish electronic files in the latest version of Microsoft Office and Microsoft Word and/or AutoCAD 2016. Also submit 2 hardcopies of all drawings, 1 half set and 1 full set. Construction shop drawings are not required to be completed in AutoCAD. Also, submit one full size hard copy of A/E DD and CD submittals for energy review.
- E. The final 100% construction documents submission will include 1 full set and 1 half set of construction documents including all disciplines/packages and will be sealed and signed by the Architects and Engineers of Record.
- F. The final construction documents will incorporate all VA supplied comments from the earlier submission package reviews and will comply with the resultant contract requirements.

- G. If the final construction documents are not complete, the A/E must resubmit the package in its entirety.
- H. Construction Specifications - Project specifications shall include specifications for all products, materials, equipment, methods and systems shown on the construction drawings in accordance with standard professional practice and the resulting contract. The specification submitted for review shall include: The name of the manufacturer, the product name, model number, or other identification as appropriate to clearly identify the product that will be used in the construction of the project.
- I. Final bid documents shall be reproduced as part of the contract. Two 2 full sets and 2 half sets of the Construction Bid Documents are to be delivered to the COR. Electronic files of the Construction Bid Documents will be provided to the COR and Contracting Officer.
- J. The required stamp of the licensed architect and engineer of record will be considered as certification of compliance with the contract requirements.
- K. Total time to accomplish Schematics, DDs, and CDs through final reproduced bid documents shall be 138 calendar days from the issuance of the Notice to Proceed. Each submission will require maximum 5 calendar days for VA review. A/E shall prepare a submission schedule based upon the submission table above so that the timeframes are met.

VII. CONSTRUCTION PERIOD SERVICE REQUIREMENTS

- A. Review of Submittals: A/E shall review all submittals, including materials, schedules, shop drawings, test reports, etc. Reviews shall be completed and submittals returned to the COR within 7 days of the A/E's receipt of the submittal.
- B. Review Analysis of Requests for Information, Change Orders, and Costs: A/E shall provide prompt response (3 to 5 calendar days) when contacted by the COR to review and provide analysis of construction contractor requests for information; change orders; and resulting cost adjustments.
- C. The A/E, when requested, shall assist the Contracting Officer and COR to interpret the construction documents and shall: (1) recommend any action(s) deemed suitable for the satisfactory prosecution of the construction work; (2) prepare any supplemental drawings, specifications or other documents that may be required to clarify or supplement the construction documents; and (3) assess the preparation of Construction Contract Modifications initiated by or through VA to be executed in accordance with the Construction Documents.
- D. Site Visits: A/E shall provide 48 site visits (1 designer or engineer for 3 hours) during the construction period when requested by the Contracting Officer, in addition to the pre-bid conference, ceiling, startup, in wall and final inspections. A site visit "unit" is defined as a visit to the site by one individual for 3 hours when requested by the Contracting Officer or COR. Multiple "units" may be required when more than one individual or an extended time period is required to inspect the work. The COR has the prerogative to determine the professional discipline(s) required for each site visit. The A/E shall notify the COR of their presence on site in order to document the number of individuals who are making the site visit. The A/E shall observe the construction, advise the COR of any deviations or deficiencies, and recommend appropriate corrective actions.
- E. "Record Drawings" Requirement: A/E shall revise the solicitation documents if necessary and provide a complete set of all drawings showing actual, completed construction and reflecting any changes incorporated in the work on hard (bond) copy and on electronic media. Electronic media drawings shall be in PDF, AutoCAD 2016, and REVIT Architecture 2016 and always electronically stamped. A/E must demonstrate full compatibility and functionality. Compatibility means that data can be accessed directly by target system without translation or processing of data files. Final electronic media specifications shall be in Microsoft Word 2010 Format and PDF format.

VIII. MATERIALS TO BE FURNISHED TO THE SELECTED A/E BY VA

- A. Drawing Files – 2016 compatible AutoCAD files of the campus site plan and architectural floor plans are available. Station utility drawing file hard copies will be made available for the AE to copy and scan. The accuracy of drawings is not guaranteed and shall be used for general information only. Actual conditions shall be field verified by the A/E.
- B. TVHS Energy Conservation Project Requirements and Design Guide Sept. 2014

IX. GEOGRAPHICAL LOCALITY

The A/E shall be geographically located within 200 miles driving distance of the VA Tennessee Valley Healthcare System, Nashville Campus.

Attachments:

- A. Attachment 1: Existing Floor Plan of Building 1, Basement SPS Space (PDF and AutoCAD)
- B. Attachment 2: VHA Directive 1116(2), Dated 3/2016
- C. Attachment 3: TVHS Standard Sequence of Operations
- D. Attachment 4: TVHS Energy Requirements and Design Guide