

**DEPARTMENT OF VETERANS AFFAIRS**  
**OUTPATIENT CLINIC**  
**TULSA, OKLAHOMA**



**140,000 NET USABLE SQUARE FEET**

**NAICS CODE: 531120**

**SIZE STANDARD - \$38.5 MILLION**

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Offers are solicited under Section 40 U.S.C. 490(H)(1), AS AMENDED, AND Section 1 of the Reorganization Plan of 1950 (40 U.S.C. 490 Note).

The information collection requirements contained in this Solicitation/Contract that are not required by regulation have been approved by the Office of Management and Budget pursuant to the Paperwork Reduction Act and assigned the OMB Control No. 3090-0163.

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**PART VII. LABOR STANDARDS PROVISION**

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PROPOSAL TO LEASE SPACE (FORM 1364A)  
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LESSOR’S ANNUAL COST STATEMENT (FORM 1217)  
SOLICITATION PROVISIONS (FORM 3516A)  
GENERAL CLAUSES (FORM 3517B)  
MODIFIED GENERAL CLAUSES - CASUALTY; REPAIR AND RESTORATION  
REPRESENTATIONS AND CERTIFICATIONS (FORM 3518)  
ADDENDUM TO SYSTEM FOR AWARD MANAGEMENT (SAM) REPRESENTATIONS  
AND CERTIFICATIONS (Acquisitions of Leasehold Interests in Real Property) (GSA Form  
3518-SAM)  
ARCHITECT-ENGINEER QUALIFICATIONS (SF 330)  
CONTRACTOR’S QUALIFICATIONS AND FINANCIAL INFORMATION (FORM 527)  
PAST PERFORMANCE SURVEY FORM  
REFERENCE CHECK QUESTIONNAIRE FORM  
BID BOND (SF 24)  
PAYMENT BOND (SF 25A)  
PERFORMANCE BOND (SF25)  
CERTIFICATE OF BUILDING ENERGY PERFORMANCE  
CERTIFICATE OF SEISMIC COMPLIANCE  
FIRE PROTECTION & LIFE SAFETY EVALUATION FOR A LOW-RISE BUILDING  
VA NATIONAL RULES OF BEHAVIOR  
SF 3881 - ACH VENDOR/MISCELLANEOUS PAYMENT ENROLLMENT FORM  
CONTRACTOR CONFIDENTIALITY CERTIFICATE (Physical Security Design Standards  
Data Definitions)

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PART XI. SCHEDULE F EQUIPMENT GUIDE LIST

# PART I

## BASIC SOLICITATION REQUIREMENTS

**NAICS CODE: 531120**

**SIZE STANDARD - \$38.5 MILLION**

## PART I. BASIC SOLICITATION REQUIREMENTS

**EDITING NOTE:** Insert necessary information where indicated by [\_\_\_\_\_]. Delete between //---// if not applicable to project. If including information between // and //, delete the // characters. Also delete any other item or paragraph not applicable in the section.

### SECTION 1 SUMMARY

#### 1.1 AMOUNT AND TYPE OF SPACE

The Department of Veterans Affairs (VA) is soliciting up to a 20-year lease for **140,000 Net Usable Square Feet (NUSF)** of space for use by VA for personnel, furnishings, and equipment. Space shall be located in a quality new building, constructed of sound and substantial construction, and shall be in compliance with all of the Government’s minimum requirements set forth in this Solicitation for Offers (Solicitation or SFO). Space must be adjoining and be on no more than two (2) contiguous floors. Parking will be the greater of 945 spaces, or as required by local codes, with ten (10%) of the total provided spaces for Architectural Barriers Act Accessibility Standard (ABAAS) compliance. On-site vehicle parking spaces, paved and striped, must be provided for use by patients, staff and official Government vehicles, and must be included as part of the rental consideration.

**Detailed definition of Net Usable Square Feet can be found in Paragraph 3.14 of this Solicitation. Unless otherwise noted, all references in this SFO to square feet shall mean Net Usable Square Feet.**

#### 1.2 SITE LOCATION

**EDITING NOTE:** Use the following paragraph if site has already been selected and VA has obtained an Assignable Option to Purchase.

**Insert the Assignable Option to Purchase, including plat and legal description, in PART X SITE SPECIFIC INFORMATION of the Solicitation.**

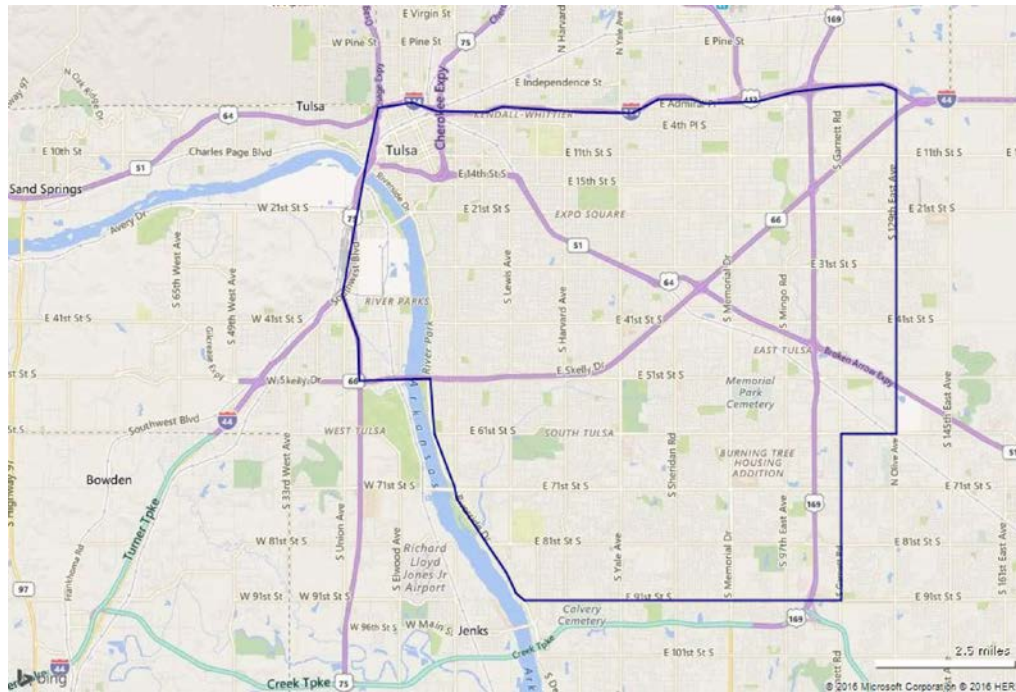
Offered properties must be within or upon the boundaries of the delineated area described below. For the purposes of this procurement, properties straddling or located on the opposite side of any defined boundary (such as a street, highway, river, etc.) will be deemed to be within the delineated area.

West: Lewis from 91st Street, northwest on Riverside Pkwy/Riverside Drive, west on I-44 to Hwy 75, north on Hwy 75 to I-244, north on I-244 to Hwy 412 junction

South: 91st Street from Garnett to Lewis

East: 129th Street at I-244 junction, south to 61st Street, west on 61st Street, to Garnett, to 91st Street.

North: I-244 from Hwy 412 junction to 129th Street.



Sites within the 100-year base flood plain as determined by FEMA will not be considered.

<https://www.fbo.gov/spg/VA/vacoofmae/vacoofmae/VA10117R0320/listing.html>

Offeror must submit written evidence that Offeror either 1) has fee simple ownership of the property, or 2) is authorized by the legal owner of the property to develop the site in accordance with the requirements of this Solicitation.

On or before the due date of final offers, Offeror must provide written evidence of the right to ownership or control of the site during the term of the lease and all option terms for the lease. Evidence of control includes, but is not limited to the following fully executed documents:

- A Binding Option to Purchase, subject only to receiving award of the lease
- A Purchase and Sale Contract
- A Fee Simple Deed
- An Option to Lease Property for Longer Than the Duration of the Lease Term Including All Renewal Options

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If the Offeror does not yet have a vested interest in the Property, but rather has a written agreement to acquire an interest, then the Offeror shall submit a fully executed copy of the written agreement with its offer, together with a statement from the current owner that the agreement is in full force and effect and that the Offeror has performed all conditions precedent to closing, or other form of documentation satisfactory to the LCO. These submittals must remain current. The Offeror is required to submit updated documents as required

**EDITING NOTE: Use the following paragraph if site has not already been selected. Develop and insert site selection criteria in Paragraph 1.11.**

**1.3 QUALITY OF SPACE**

**EDITING NOTE: Include text starting at second sentence only if the Contracting Officer has determined that it is in the interest of the Government (for reasons such as schedule, cost, or location) to include consideration of existing buildings.**

The Offeror shall design and construct a building to suit the Government's requirements. The Government may consider space in existing buildings of sound and substantial construction which can be made adaptable as modern office and outpatient space. If not in a new building, the space offered must be in a building that has undergone, or will undergo by occupancy, restoration of adaptive reuse for office and outpatient space with modern conveniences. If the restoration work is underway or proposed, then design or construction documents acceptable to the Contracting Officer must be submitted as part of the offer. Acceptability of the proposed building will be judged against all the requirements of this SFO. Buildings which have incurable functional obsolescence and/or are unsuitable in configuration for medical space floor plan layout may be rejected by the Contracting Officer.

The site, site improvements, building, interior spaces and finishes, and Lessor-furnished equipment and special construction shall be provided in accordance with this SFO, all applicable Federal requirements, local Building Codes and ordinances, and applicable utility company requirements.

Site, site improvements, building, interior construction, and equipment shall comply with General Design Criteria as enumerated in SECTION 4, including Codes and Standards, criteria unique to VA, Fire, and Life Safety requirements, Environmental requirements, Accessibility Standards, OSHA requirements, and Energy Efficiency and Sustainable Design.

**1.3.1 QUALITY OF SITE DEVELOPMENT**

Site development including landscaping, site amenities, utility systems, and exterior signage shall comply with the requirements enumerated in SECTION 5 of this SFO.

On-site vehicle parking spaces, paved and striped, must be provided for use by patients, staff and official Government vehicles, and must be included as part of the rental consideration. The Lessor must provide the greater of the following: the number of parking spaces required by local building or zoning regulations, or the number of parking spaces indicated in SECTION 5.

Pedestrian circulation and site amenities shall be provided as required by SECTION 5 of this SFO.

**1.3.2 QUALITY OF BUILDING**

The space offered shall be of shape and dimensions that will accommodate the space program and interior functional requirements of VA Outpatient Clinic.

The space offered shall be in a building of sound and substantial construction in accordance with the technical requirements of this solicitation.

The space offered shall be located in a new or modern building with facade of stone, brick, aluminum curtain wall, or other permanent materials. The exterior building materials shall be subject to technical and aesthetic review and approval of the Contracting Officer. The building shall be compatible with its surroundings. Overall, the building must project a professional and aesthetically pleasing appearance. Building systems, interior spaces and finishes, and Lessor furnished equipment and special construction shall comply with the requirements enumerated in SECTION 6 and SECTION 7; and Schedule B and Schedule E of this SFO.

**1.3.3 SPECIAL REQUIREMENTS**

- Physical security features shall comply with requirements for "Life Safety Protected" as described in the Physical Security Design Manual for VA Facilities, <http://www.cfm.va.gov/til/PhysicalSecurity/dmPhySecLS.pdf>, and Security and Law Enforcement VA Handbook 0730/4".
- Natural disasters resistive features shall comply with the requirements enumerated in this SFO.
- Sustainability and energy efficiency features shall comply with the requirements enumerated in this SFO.
- Comply with Centers for Disease Control (CDC) requirements for Tuberculosis.
- Comply with US Pharmacopeia Chapter <797> for sterile preparation areas as enumerated in this SFO.

**1.3.4 AESTHETIC QUALITY**

**Overview of Building Design**

The Tulsa Outpatient Clinic has been created with input from VA leadership, local user groups, and has been designed to meet the needs of the existing patient population and anticipated growth. The programming and planning began with the current workload required by the existing Muskogee VAMC, and satellite CBOCs. This determined workload was the base starting point, with projected workload and services factored in to create a new clinic (program) capable of handling the required demands. The design team had meetings with the user groups and department leaders of the Muskogee and Tulsa facilities to verify department flow and refine the building design concept. The program and department adjacencies follow closely the preferred templates from the VA as well as recently constructed projects with the current CBOC prototype. The concept design has had adjustments made to avoid problems that other (new) facilities have discovered and incorporated items that have worked well for these users.

**Site Design**

The site design is not based on a particular site, but has been developed to a conceptual level that shows the VA's requirement for site design. It provides a clear and easy route for patient drop off to occur at the main entry with a covered area; ample accessible parking areas near the patient building entries and a separate staff parking area.

There is a sidewalk connection from the public right of way to the facility and the parking areas that need to comply with the VA Parking Design Manual, which features ample landscaping areas throughout the surface lots. The landscape design shown is conceptual and will need to comply with all local ordinances and the Parking Design Manual. Storm water management will be accomplished with detention areas within the site. All building equipment such as transformers, emergency generators, and trash (enclosures) should be located away from the front of the building.

There is a 25' setback maintained between the building and the parking or drive lanes per the VA Physical Security Design Manual for Life-Safety protected facilities.

**Building Design**

Building exterior envelope is composed of architectural fiber cement cladding and anodized aluminum curtain wall and storefront system. Fiber cement panels will compose the general skin of the building with the texture and color of the panels changing in various areas to highlight and accent significant building features. An anodized aluminum curtain wall system meeting VA standards is used at the main entry wall of the front public areas and is utilized to maximize daylighting opportunities. Colored glazing and spandrel glass will also be introduced into the glazing system as accents and to break up and highlight views. Prefinished metal panels will also be used on the building canopies. The building will be two stories with architectural features highlighting both the vertical and horizontal masses of the building. The Main entry to the clinic will be a story and a half, providing an appropriately scaled space for patients and staff to enter the clinic.

The primary building roof is a white membrane roofing system. Fixed light aluminum windows provide views and natural lighting to the required rooms and spaces and are sized and positioned to modulate views, light and privacy as required. Required metal panel cladding and steel tube framing will be used to screen roof top mechanical equipment. The size and



layout of the rooftop equipment will need to be confirmed during design development once the equipment location and sizes have been established.

The design concept also includes modular planning for as many spaces as possible. The use of large central corridors for easy access and way finding within the building along with adjacencies of certain areas to each other provides a good flow throughout the building. The clinic has Group meeting and Conference rooms adjacent to the Lobby and 2nd floor public area that can be accessed without entering the clinic space. The rear of the building, and first floor right side, are devoted to Building and staff support. These areas will provide access to, lockers, restrooms, staff lounge, and building service areas.

**1.4 TERM**

All offerors must submit proposals based on the following:

- Alternate A) 15-year firm term;
- Alternate B) 15-year firm term, with one 5-year option; and
- Alternate C) 20-year term.

The Contracting Officer reserves the right to award on any available alternate listed above, based on what is considered to be in the best interest of the Government.

All the terms and conditions contained herein shall prevail throughout the term of the lease, including all renewal options. Offerors are advised that they must submit pricing for all Alternates listed above in order to be considered responsive. Offerors submitting different or fewer pricing alternates may be rejected as non-responsive by the Contracting Officer.

**1.5 OFFER DUE**

Offers are due by December 1, 2017, and must remain open until award. VA currently anticipates award on or before September 2018. Offers must remain open, and pricing must remain valid 60 calendar days from the date of award.

A preproposal conference is scheduled for October 26, 2017 at 10:00 AM at the Wyndham Tulsa, 10918 E. 41st Street, Tulsa, OK 74146. Interested parties will be responsible to submit initial questions to be addressed at the preproposal conference by October 13, 2017.

Attendance at the preproposal conference is encouraged, but not required to submit an offer in response to the solicitation.

After, the preproposal conference interested parties may submit any remaining questions in writing via email to the Contracting Officer, and copy Bill Craig of JLL at the contact information provided in paragraph 1.7 below. The final due time and date for questions submissions will be 5:00 PM Eastern on November 2, 2017.

**1.6 OCCUPANCY DATE**

**EDITING NOTE: Refer to Design Guide for Leasing OPC for factors to be considered in development of the project schedule and occupancy date.**

Occupancy is required within thirty-two (32) months from lease award. Offeror shall submit a detailed Project Management Plan (PMP) to reduce risk and ensure deliverables are met on time and on budget of the project schedule.

The plan shall include a narrative approach to the execution of this project from the point of lease award through VA's acceptance of the facility. The narrative shall address Offeror's approach to leadership, management, and communication, modifications, as well as cost, project schedule and quality control.

**1.7 HOW TO OFFER**

Proposals are required to be received by the Contracting Office by the date and time specified in Paragraph 1.5 of the SFO. In addition, a courtesy copy must be submitted to VA's broker by the date and time specified in Paragraph 1.5 of the SFO. The VA's receipt will serve as the official proposal submission for determining if the proposal was submitted on time. For proposals shipped, provide both VA and VA's Broker a receipt demonstrating delivery to VA is scheduled to occur before 4:00 PM ET on the specified date.

Hand carried proposals must be coordinated with Allyson Lee at (202) 632-5268 to arrange for her to pick up the package in the lobby of 425 I Street, NW Washington, DC 20001. All hand delivery submissions must be completed before 4:00 PM ET.

All original offers, including all required documents, must be submitted to VA, with a copy to VA's broker, at the following addresses:

Tamim Chowdhury, Department of Veterans Affairs  
Office of Facilities Acquisition, (003C4)  
425 I Street, NW, Room 6E411B  
Washington, DC 20001  
Email: tamim.chowdhury@va.gov

Bill Craig  
Managing Director  
JLL  
1850 Towers Crescent Plaza, Suite 300  
Tysons, VA 22182  
(703) 485-8736  
bill.craig@am.jll.com

**Email: dmarsh@isiwdc.com**  
**EDITING NOTE: Insert Contracting Officer name and edit**

addresses as applicable. Include room number for express mail or hand delivery.

**1.7.1 DOCUMENTS TO SUBMIT WITH OFFER**

Offers shall be submitted to VA at the above referenced location in two (2) separate Volumes. Offers shall be properly signed, initialed, converted to a PDF file and indexed with bookmarks, and submitted on compact discs. Each compact disc shall be marked appropriately: Volume 1-Technical Proposal and Volume 2-Price Proposal. No hard copy of materials shall be submitted to VA. Offerors shall only submit one electronic copy (Compact Discs) of each Volume to the Contracting Officer at the address above. Each CD cover/sleeve/holder as well as the actual CD shall be marked appropriately with the following information in type size and color that is clearly readable:

- Name of Offering Entity
- SFO VA101-17-R-0320, Tulsa, OK, Outpatient Clinic
- Initial Offer Volume 1-Technical Proposal or Initial Offer Volume 2-Price Proposal
- Date of Submission

In addition to the requested number of submission packages listed above, Offerors will submit eight (8) compact discs of Volume 1 – Technical Proposal, one (1) compact disc of Volume 2 – Price Proposal and one original hard copy of each Volume to JLL at the above address; the original hard copy shall be properly signed, initialed, indexed and packaged in 3-ring binders marked, Volume 1-Technical Proposal and Volume 2-Price Proposal. Additionally, one (1) hard copy of drawing and renderings shall be provided to JLL.

Offers shall consist of the following documents:

**Volume 1-Technical Proposal**

- Technical Information that addresses evaluation factors and sub factors which are listed in Paragraph 2.3 of the Solicitation.
- Plans, written narratives, design concept, calculations, mechanical and electrical systems, and energy efficiency of the proposed building as described in Paragraphs 10.7, 10.8, and 10.9 of the Solicitation;
- Building Operating Plan as described in Paragraph 8.4 of the Solicitation;
- Detailed Operations and Maintenance Plan narrative and completed FMA Worksheet as described in Schedule A;
- GSA Form 527, Contractor’s Qualifications and Financial Information; to include offeror experience with government leases, special emphasis on major leases and/or leases of medical facilities that include procedure rooms, and sterile processing;

- GSA Form 330, Architect-Engineer Qualifications; to include offeror experience with government leases, special emphasis on major leases and/or leases of medical facilities that include procedure rooms, and sterile processing;
- In response to a request for proposals, the Offeror shall provide evidence of a firm commitment of teaming arrangements with both the general contractor and the architect firm(s) that were presented in the Lessor’s proposal in the form of a letter on each company’s letterhead addressed to the Contracting Officer from the principal(s) of each of the respective firms.
- Past Performance Survey Form;
- Past Performance Reference Questionnaire;
- Basic Solicitation and Amendments, if applicable;
- PART VII Labor Standard Provisions;
- GSA Form 3516A, Solicitation Provisions;
- 3517B, General Clauses & Updates;
- Modified General Clauses – CASUALTY; REPAIR AND RESTORATION;
- 3518, Representations and Certifications; (Ensure all required declarations are made throughout the entire form);
- GSA Form 3518-SAM, Addendum to System for Award Management (SAM) Representations and Certifications (Acquisitions of Leasehold Interests in Real Property). Ensure all required declarations are made throughout the entire form;
- To receive credit for the small business evaluation criteria, small businesses must have an active registration in the System for Award Management (SAM) System, available at [www.sam.gov](http://www.sam.gov), at the time of initial offer submission. In addition, the small business must be registered with the Small Business Administration (SBA). Provide proof of verification with offer. System for Award Management (SAM) electronic printout demonstrating applicable size standard and associated North American Industry Classification System (NAICS) code;
- To receive credit as SDVOSB or VOSB, an offeror must be registered and verified in Vendor Information Pages (VIP) database. (<http://www.va.gov/osdbu/>). Provide proof of verification with offer.
- System for Award Management (SAM) electronic printout demonstrating applicable size standard and associated North American Industry Classification System (NAICS) code. Offerors shall submit the complete SAM “Entity Record” (not Entity Overview) with following provisions expanded:
  - FAR 52.204-3: Taxpayer Identification

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- FAR 52.212-3: Offeror Representations and Certifications -Commercial Items (Alternate I)
- FAR 52.219-1: Small Business Program Representations (Alternate I);
- Small Business Subcontracting Plan (requirement for large businesses offerors identified.)
- Certification of Building Energy Performance;

**GSA Form 12000 Fire Protection & Life Safety Evaluation for a Low-Rise Building;EDITING NOTE: The following is required for projects 10,000 NUSF and above.**

- A proposed sustainable checklist identifying targeted solutions to meet Green Globe® Two Globes Certification. Along with the proposed checklist, the Offeror shall submit a brief statement outlining how each of the Green Globe® credits proposed will be achieved.
- Evidence of compliance with Seismic criteria as described in Paragraph 6.1 STRUCTURAL of the Solicitation.
- Certificate of Seismic Compliance
- A current title report for each property or properties being offered which should include a chain of title including all deeds referenced in the chain of title. Copies of all instruments associated with the title commitment, which created rights, interests or encumbrances on the proposed easement property, and disclose the names of each person with the interest in the property.
- Documentation of ownership or control of the properties being offered and evidence of signature authority of the party(ies) who will sign and lease documents and ability to meet the minimum site requirements. Refer to Paragraph 2.5 Control of Property.
- A letter/letters from the local Authority Having Jurisdiction (AHJ) and/or local utilities indicating that there are adequate public services - fire, police, emergency services – serving the subject property to support VA’s proposed use.
- Documentation addressing the availability of utility services to the subject property from the local Authority Having Jurisdiction. These would include, but are not limited to, police service, fire service, communications (fiber optic), electricity, natural gas, potable water and sanitary sewer access.
- In the initial offer and prior to award, the Offeror shall provide evidence of a firm commitment of teaming arrangements with both the general contractor and the architect firm(s) that were presented in the Lessor’s proposal in the form of a letter on

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each company's letterhead addressed to the Contracting Officer from the principal(s) of each of the respective firms.

- Schedule E
- Schedule F
- A Phase1 Environmental Assessment must be included with each initial offer.

**Volume 2-Price Proposal (2 discs)**

- GSA Form 1364A, Proposal to Lease Space;
- Attachment #1 to GSA Form 1364A;
- GSA Form 1217, Lessor's Annual Cost Statement;
- An itemized cost for all individual items in Schedule B, including Parts III, IV, and V;
- A list of Unit Costs for Adjustments (Part IV Schedule C Exhibit A), and a list of Unit Prices for Alterations (Part IV Schedule C Exhibit B). Refer to Paragraphs 3.2 and 3.3. NOTE: Quantities and materials are listed in Schedule C for the purpose of obtaining the price which the offeror proposes for constructing and installing such quantities and materials in the areas of the building designated as NUSF. The offeror shall include in its proposed rent the costs of materials, construction and installation required to complete all areas of the building outside the NUSF area.
- Bid Summary Form (Part V Schedule D).
- Maintenance Cost Worksheet from Schedule A. (Schedule A Narrative should be included in the Technical Disc).
- Form 3881 – Vendorizing Form;
- Bid Bond

**1.7.2 INSTRUCTIONS AND ADDITIONAL INFORMATION**

Instructions for preparation of the offer can be found in SECTION 10 INSTRUCTIONS AND PREPARATION of this part of the Solicitation and GSA Form 3516A, Solicitation Provisions (located in PART VIII). If additional information is needed, VA's broker, **Bill Craig of JLL**, should be contacted.

Bill Craig  
JLL  
1850 Towers Crescent Plaza, Suite 300

Tysons, VA, 22182  
(703) 485-8736  
Bill.Craig@am.jll.com

**1.7.3 OPENING OF OFFERS**

There will be no public opening of the offer, and all information will be confidential until the lease has been awarded. However, the Government may release the proposal outside the Government to a Government support contractor to assist in the evaluation of the proposal. Such Government contractors shall be required to protect the data from unauthorized disclosure. If you desire to maximize protection of information in your offer, you may apply the restriction notice to your offer as prescribed in the provision entitled "552.270-1(d)(1) & (2), Instructions to Offerors" (see GSA Form 3516A, Solicitation Provisions, page 3).

**1.8 PROPOSALS**

**1.8.1 RENTABLE SQUARE FEET**

Offerors shall submit the total rentable square feet (RSF) of the building and a cost per rentable square foot. The submission of a rentable square foot cost is required for scoring purposes to determine if the proposed lease is a capital or operating lease.

NOTE: Definitions for rentable and net usable square feet are located in Paragraph 3.14 RENTABLE AND NET USABLE SQUARE FEET of this solicitation.

**1.8.2 SPECIAL EQUIPMENT**

Offerors shall submit cost proposals for all special equipment requirements set forth in Schedule B.

**1.8.3 NET USABLE SQUARE FEET RATES**

For evaluation and negotiation purposes, the offer shall state the following on GSA Form 1364A, Proposal to Lease Space:

A NUSF rental rate that **includes** the costs of all special equipment and other requirements described in Schedule B and Janitorial.

A NUSF rental rate that **excludes** the costs of all special equipment and other requirements described in Schedule B, but includes Janitorial.

Cost per NUSF for Janitorial Services.

A lump-sum payment cost for all special equipment and other requirements described in Schedule B.

Offerors shall provide cost for all methods of evaluation in order to be considered for award. VA may elect the option it deems most favorable.

**NOTE: WHEN PRICING SCHEDULE B, THE OFFEROR MUST PROVIDE A SEPARATE COST FOR EACH LINE ITEM OF THE SPECIAL EQUIPMENT AND REQUIREMENTS DESCRIBED. ALSO, REPRESENTATIONAL PRICING OF EACH PROGRAM AREA MUST BE PROVIDED ON THE SCHEDULE B "SUMMARY PRICE SHEET." PROFIT AND OVERHEAD SHOULD BE INCLUDED WITHIN COST OF EACH LINE ITEM AND NOT PROVIDED AS SEPARATE LINE ITEMS. SUMMARY COST SHEET MUST BE SIGNED BY THE OFFEROR.**

**Offerors who do not offer cost proposals as stated in Paragraphs 1.8.2 and 1.8.3 above will be rejected as unacceptable.**

**1.9 BONDS**

All sureties must be listed in the Department of Treasury Circular 570 Approved Surety List. Standard Form 24 (Bid Bond) and Standard Form 25 (Performance Bond) must be used in accordance with FAR 28.106-1. Copies of the forms are included in PART VII of this Solicitation or forms may be acquired by visiting the GSA Forms Library Website at <https://www.gsa.gov/reference/forms>. The Government shall have the right to approve or reject any and all terms and conditions of any and all bonds obtained by the Offeror pursuant to this Solicitation. In addition, the terms and conditions of the Bond(s) shall be subject to the prior approval of the Government.

**1.9.1 BID BOND**

To assure the faithful execution of the terms and conditions of the agreement, each Offeror shall submit a Bid Bond with their initial offer. Offers without Bid Bonds will not be considered. The Bond shall remain in effect until a Performance Bond becomes effective should the Offeror be successful, or until VA has notified the Offeror that his proposal is no longer under consideration by VA. A surety company holding a certificate of authority from the Secretary of the Treasury as acceptable surety will execute the Bond. A verifax or other facsimile copy of the agent's authority to sign bonds for the Surety Company shall accompany the Bond. The Offeror shall furnish a proposal guarantee in the form of a Bid Bond supported by good and sufficient surety acceptable to the Government. The amount of the Bid Bond guarantee shall be in the amount of \$100,000. Acceptable alternate bonding protection will be in accordance with FAR 28.204-1 United States Bonds or Notes, or FAR 28.204-3 Irrevocable Letter of Credit (ILC). Invalid bonds may be grounds to render your proposal non-responsive and will not be eligible for an award. Once an award has been made all original Bid Bonds will be returned, except for the successful Offeror whose Bid Bond will be required to remain in full force until such time as a Performance Bond has been received and accepted by the Government.

**1.9.2 PERFORMANCE AND PAYMENT BONDS – CONSTRUCTION (NOV 2006)**

*(a) Definitions.* As used in this clause—



“Original contract price” means the award price of the contract; or, for requirements contracts, the price payable for the estimated total quantity; or, for indefinite-quantity contracts, the price payable for the specified minimum quantity. Original contract price does not include the price of any options, except those options exercised at the time of contract award.

(b) *Amount of required bonds.* Unless the resulting contract price is \$100,000 or less, the successful offeror shall furnish performance and payment bonds to the Contracting Officer as follows:

(1) *Payment Bonds (Standard Form 25A).* To assure faithful payment to subcontractors and material suppliers, a surety bond is required by the Offeror to guaranty that his subcontractors and material suppliers on the project will be paid. The penal amount of payment bonds at the time of contract award shall be 100 percent of the original contract **(construction)** price no later than 60 days from VA’s final review and written approval of the completed construction documents. The Payment Bond shall remain in effect until the Government accepts the space for occupancy. The United States of America, acting through the Secretary of the Department of Veterans Affairs, shall be named as co-beneficiary on the Bond obtained by the Offeror.

(2) *Performance Bonds (Standard Form 25).* To assure faithful execution of the contract, the successful Offeror shall provide a Performance Bond for 100% of the Total Project Cost as shown in the Offeror’s Schedule D no later than thirty (30) days after the date of lease award. The Performance Bond shall remain in effect until it is amended or replaced as set forth in Paragraph (3) below. The United States of America, acting through the Secretary of the Department of Veterans Affairs, shall be named as co-beneficiary on the Bond obtained by the Offeror.

(3) *Performance Bonds after 100% Construction Drawings.* The successful Offeror shall provide an amended or replacement Performance Bond for 100% of the actual construction cost, based on the completed construction documents, no later than 60 days of VA’s final review and written approval of the completed construction documents. The amended or replacement Performance Bond shall remain in effect until the Government accepts the space for occupancy. The United States of America, acting through the Secretary of the Department of Veterans Affairs, shall be named as co-beneficiary on the Bond obtained by the Offeror.

(4) Additional bond protection.

(i) The Government may require additional performance and payment bond protection if the contract price is increased. The increase in protection generally will equal 100 percent of the increase in contract price.

(ii) The Government may secure the additional protection by **directing the Contractor to obtain an additional bond for the increased amount.**

(c) *Furnishing executed bonds.* The Contractor shall furnish all executed bonds, including any necessary reinsurance agreements, to the Contracting Officer, within the time period specified in the Bid Guarantee provision of the solicitation, or otherwise specified by the Contracting Officer, but in any event, before starting work.

(d) *Surety or other security for bonds.* The bonds shall be in the form of firm commitment, supported by corporate sureties whose names appear on the list contained in Treasury Department Circular 570, individual sureties, or by other acceptable security such as postal money order, certified check, cashier's check, irrevocable letter of credit, or, in accordance with Treasury Department regulations, certain bonds or notes of the United States. Treasury Circular 570 is published in the *Federal Register* or may be obtained from the:

U.S. Department of the Treasury  
Financial Management Service  
Surety Bond Branch  
3700 East West Highway, Room 6F01  
Hyattsville, MD 20782.

Or via the internet at <https://www.fiscal.treasury.gov/fsreports/ref/suretyBnd/c570.htm>

(e) *Notice of subcontractor waiver of protection (40 U.S.C. 3133(c)).* Any waiver of the right to sue on the payment bond is void unless it is in writing, signed by the person whose right is waived, and executed after such person has first furnished labor or material for use in the performance of the contract.

**1.9.3 BOND PREMIUM ADJUSTMENT (JAN 2008)**

When net changes in original contract price affect the premium of a Corporate Surety Bond by \$5 or more, the Government, in determining the basis for final settlement, will provide for bond premium adjustment computed at the rate shown in the bond.

**1.10 DAVIS BACON WAGES**

The wages to be paid during performance under this lease contract must conform to the Department of Labor's General Wage Decision No. OK170053 dated September 1, 2017, and as may be amended during the period of construction of the leased premises. A copy of the standards is provided in PART VII of this Solicitation. It is the Lessor's responsibility to obtain and maintain the most current rates.

**1.11 SITE SELECTION CRITERIA**

**EDITING NOTE: Use this paragraph if site selection has not been made prior to issuing the SFO.**

The Site offered must meet the following minimum characteristics:

- Be able to accommodate the proposed building and provide the required amount of appropriately located parking with appropriate vehicular circulation, loading dock and service vehicle access, emergency vehicle (ambulance) access and entry, building utility equipment (chillers, emergency generator, fuel tanks, etc.), safe ways of passage for pedestrians, barrier-free access to public entrances, and adequate open

space with landscaping to complement the architecture and create a pleasing outdoor environment.

- Topography shall be without steep grades and shall not be affected by the 100-year flood plain as mapped by FEMA, rock outcroppings, or adverse subsurface conditions.
- Be free of environmental hazards or restrictions. A Phase 1 Environmental Assessment may be requested by the Contracting Officer, if deemed necessary.
- Provide proof of ownership and chain of title through a current title report. Provide proof that all encumbrances have been addressed or identified in a current title report; current within 90 days.
- Provide prominent visibility of the facility from major public thoroughfares.
- Main ingress/egress for on-site pedestrian and vehicular circulation shall be easily accessible from major public thoroughfares.
- Offered space must be located on no more than two contiguous floors. If the offered space is on two floors, a minimum of three passenger elevators and two combination (passenger/freight) elevator must be provided.
- Bifurcated sites, inclusive of parking, are not permissible.
- The following space configurations will not be considered: Space with atriums or other areas interrupting contiguous space, extremely long or narrow runs of space (more than twice as long as wide), irregularly shaped space configurations or other unusual building features adversely affecting usage.
- Column size cannot exceed two feet square and space between columns and/or walls cannot be less than twenty feet.
- Offered space cannot be in the FEMA 100-year flood plain.
- Offered space must be zoned for VA's intended use.
- Offered space will not be considered if located in close proximity to property with incompatible uses, including but not limited to the following uses: liquor establishments, treatment centers, correctional facilities, facilities where firearms are sold/discharged, railroad tracks, or within flight paths.
- Offered space will not be considered if located in close proximity to residential or industrial areas.
- Space will not be considered where apartment space or other living quarters are located within the same building.
- Offered space must be located in close proximity to amenities including but not limited to restaurants, hotels, pharmacy, and shopping.

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- Offered space must be located in close proximity to a hospital or standalone emergency room center and a fire department.
- Offered space must be located in close proximity to public transportation.
- Loading dock is required.
- Parking lot must be able to accommodate deliveries by trucks with trailers.
- Structured parking under the space is not permissible.
- Offered space must meet Federal and Local Government requirements for fire safety, physical security, accessibility, seismic, and sustainability standards per the terms of the solicitation for offers or request for proposals.
- Offered space must be compatible for VA's intended use.
- Offeror must provide evidence of the right to ownership or control of the site during the term of the lease and all option terms for the lease. Evidence of control includes, but is not limited to the following fully executed documents:
  - a. An Option to Purchase
  - b. A Purchase and Sale Contract
  - c. A Fee Simple Deed
  - d. An Option To Lease Property For Longer Than the Duration of the Lease Term Including All Renewal Options.

**1.12 LEASE ACQUISITION FEE**

The Lessor shall be responsible for paying all real estate commissions due in connection with the consummation of this Lease.

For purposes of this Solicitation, the real estate firm of Jones Lang LaSalle Americas, Inc.. (JLL) is the authorized representative of the US Department of Veterans Affairs (VA) and is providing Lease Acquisition Services to VA in connection with this transaction. It is understood between Lessor and VA that JLL has provided Lease Acquisition Services on behalf of VA to assist in the completion of this transaction.

In connection with the provisions of such Lease Acquisition Services and in the event of consummation of a lease agreement between Lessor and VA, Lessor will pay a commission or lease acquisition fee to JLL in the amount of a percentage equal to eighty-five hundredths of one percent (0.85%) of the total contract value of the lease term to include, but not be limited to, base rent (including fixed rental increases or as annualized), other rental income, operating expenses (base year), real estate taxes (base year), and tenant improvement allowance (or applicable amortization). The total contract value that will be used to determine eighty-five hundredths of one percent (0.85%) commission will be established based on the final lease documents upon lease execution or as amended thereof. Such commission or lease acquisition fee shall be due and payable, as follows:

Seventy-five percent (75%) of commission or lease acquisition fee shall be paid to JLL within thirty (30) calendar days following lease execution between Lessor and VA; and

The remaining twenty-five percent (25%) of commission or lease acquisition fee shall be paid to JLL within thirty (30) calendar days following the earlier to occur of VA's acceptance of space or commencement of rent payments.

The Lessor's responsibilities to pay the commission(s) or lease acquisition fee is independent of any other Lessor financial responsibilities of this Lease and shall not be used to negotiate or offset any credits owed VA by the Lessor. However, in the event Lessor shall fail to pay the commission(s) or lease acquisition fee amount owed to JLL pursuant to the compensation schedule outlined herein, VA, at VA's sole option, shall pay the commission(s) or lease acquisition fee on behalf of Lessor to JLL out of rent payments and/or any lump-sum payments owed or to be owed to Lessor for reimbursement(s) of tenant improvement costs or payment(s) for services/work provided by Lessor. **The Lease Acquisition Fee shall not exceed one million, five hundred thousand dollars, US (\$1,500,000).**

**1.13 WAIVER OF RESTORATION (APR 2011)**

The Lessor shall have no right to require the Government to restore the Premises upon termination of the Lease, and waives all claims against the Government for waste, damages, or restoration arising from or related to (a) the Government's normal and customary use of the Premises during the term of the Lease (including any extensions thereof), as well as (b) any initial or subsequent alteration to the Premises regardless of whether such alterations are performed by the Lessor or by the Government. At its sole option, the Government may abandon property in the Space following expiration of the Lease, in which case the property will become the property of the Lessor and the Government will be relieved of any liability in connection therewith.

**1.14 BUDGET SCOREKEEPING; OPERATING LEASE TREATMENT (APR 2011)**

The Government will award a Lease pursuant to this SFO only if the Lease will score as an operating lease under Office of Management and Budget Circular A-11, Appendix B. Only offers that are compliant with operating lease limitations will be eligible for award. Offerors are obligated to provide supporting documentation at the request of the CO to facilitate the Government's determination in this regard.

**1.15 OFF-SITE IMPROVEMENTS**

**The cost of off-site improvements will be borne by the Lessor. The Lessor is responsible for determining the cost of off-site improvements prior to lease award, and including the costs of off-site improvements in the proposed rent.**

The LESSOR, at its own cost, shall perform and complete all off-site work and improvements which may consist of, but are not limited to, streets, street name signs, traffic signs, sewers, water systems, fire hydrants, curbs, gutters, sidewalks, street lighting, driveways, drainage

facilities, accesses, survey monuments, etc., hereinafter referred to as off-site improvements, and said off-site improvements shall be constructed in accordance with applicable Federal, State, and local laws, regulations, standards, and specifications. Lessor is responsible for obtaining all permits and required approvals, including VA approval, of the off-site improvement plan. Lessor is required to obtain all permits and approvals, prior to commencing work. Lessor is solely responsible for initiating and completing any related hazardous material abatement, remediation, removal, or other environmental cleanup actions related to the off-site work and improvements that may be necessary or required pursuant to Federal, State and local laws, regulations, ordinances, codes or other requirements.

“Hazardous materials” shall mean any substance which is or contains: (i) any “hazardous substance” as now or hereafter defined in Section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. Section 9601 et seq.) (“CERCLA”) or any regulations promulgated under CERCLA; (ii) any “hazardous waste” as now or hereafter defined the Resource Conservation and Recovery Act (42 U.S.C. Section 6901 et seq.) (“RCRA”) or regulations promulgated under RCRA; (iii) any substance regulated by the Toxic Substances Control Act (15 U.S.C. Section 2601 et. seq.); (iv) gasoline, diesel fuel or other petroleum hydrocarbons; (v) asbestos and asbestos containing materials, in any form, whether friable or non-friable; (vi) polychlorinated biphenyls; and (vii) any additional substances or materials which are now or hereafter classified or considered to be hazardous or toxic under any laws, ordinances, statutes, codes, rules, regulations, agreements, judgments, orders and decrees now or hereafter enacted, promulgated, or amended, of the United States, the state, the county, the city or any other political subdivision in which the Property is located and any other political subdivision, agency or instrumentality exercising jurisdiction over Lessor.

The Lessor is responsible for proper construction, maintenance, and compliance with all federal, state, and local laws and regulations of all required off-site improvements through the duration of the lease. At completion or termination of the lease, the Lessor, and not the Government, is responsible for any restoration or removal of the off-site improvements, including, but not limited to, the removal of any environmental, safety, and hazardous materials.

**1.16 DUE DILIGENCE**

The LESSOR acknowledges its duty to conduct reasonable site inspections and due diligence activities for the proposed site. The LESSOR warrants that it has considered all factors which a prudent, experienced bidder customarily uses in making judgments about site conditions, quantity, quality and methods of performing the particular work. By submitting a proposal for consideration in response to this Solicitation, the LESSOR acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its cost, including but not limited to the conformation and conditions of the ground. The LESSOR also acknowledges that it has satisfied itself as to the character, quality and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from inspection of the site.

**1.17 APPLICABLE LAW**

Any provision in this Lease that purports to assign liability or require expenditure of funds to the Lessor shall be governed by the provisions of the Contract Disputes Act of 1978, 41 USC 7101-7109, Anti-Deficiency Act, 31 USC 1341, and the Federal Tort Claims Act, 28 USC 2671 et seq.

**1.18 SERVICE-DISABLED VETERAN-OWNED AND VETERAN-OWNED SMALL BUSINESS EVALUATION FACTORS (DEC 2009)**

(a) In an effort to achieve socioeconomic small business goals, depending on the evaluation factors included in the solicitation, VA shall evaluate offerors based on their service-disabled veteran-owned or veteran-owned small business status and their proposed use of eligible service disabled veteran-owned small businesses and veteran-owned small businesses as subcontractors.

(b) Eligible service-disabled veteran-owned offerors will receive full credit, and offerors qualifying as veteran-owned small businesses will receive partial credit for the Service-Disabled Veteran-Owned and Veteran-owned Small Business Status evaluation factor. To receive credit, an offeror must be registered and verified in Vendor Information Pages (VIP) database. (<http://www.va.gov/osdbu>).

(c) Non-veteran offerors proposing to use service-disabled veteran-owned small businesses or veteran-owned small businesses as subcontractors will receive some consideration under this evaluation factor. Offerors must state in their proposals the names of the SDVOSBs and VOSBs with whom they intend to subcontract and provide a brief description of the proposed subcontracts and the approximate dollar values of the proposed subcontracts. In addition, the proposed subcontractors must be registered and verified in the VetBiz.gov VIP database (<http://www.va.gov/osdbu>).

**1.19 52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE**

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this/these address: [www.acquisition.gov](http://www.acquisition.gov).

**1.20 852.252-70 SOLICITATION PROVISIONS OR CLAUSES INCORPORATED BY REFERENCE**

The following provisions or clauses incorporated by reference in this solicitation must be completed by the offeror or prospective contractor and submitted with the quotation or offer. Copies of these provisions or clauses are available on the Internet at the Web sites provided in the provision at FAR 52.252-1, Solicitation Provisions Incorporated by Reference, or the clause at FAR 52.252-2, Clauses Incorporated by Reference. Copies may also be obtained from the contracting officer.

**INCORPORATED BY REFERENCE**

52.204-6 -- Data Universal Numbering System Number.

52.204-8 -- Annual Representations and Certifications.

52.215-1 Instructions to Offerors –Competitive Acquisition.

52.222-24 -- Pre-award On-Site Equal Opportunity Compliance Evaluation.

(End of Provision)

**1.21 ~~EXTENDED OPTION FEE PAYMENT CREDIT~~ INTENTIONALLY DELETED**



**SECTION 2 COMMUNICATIONS AND AWARD**

**2.1 ORAL PRESENTATIONS**

**EDITING NOTE: Oral presentations are generally not requested. Include this paragraph if oral presentations will be required.**

Oral presentations may be made to augment written information. Oral presentations will not be required unless specifically requested by the Government in writing. Oral presentations may occur at any time during the acquisition process and are subject to the same restrictions as written information with regard to timing and content. Information pertaining to areas such as an Offeror’s capability to perform, past performance, key personnel resources, work plan approaches, etc., may be suitable for oral presentations. Should the Government require an oral presentation, the Offeror will be provided with (1) sufficient information to prepare them, including the types of information to be presented and the associated evaluation factors that will be used; (2) the qualifications for personnel that will conduct the oral presentation; (3) the requirement for, and any limitations and/or prohibitions on, the use of written material or other media to supplement the oral presentation; (4) the location, date, and time for the oral presentation; (5) the restrictions governing the time permitted for each oral presentation; and (6) the scope and content of exchanges that may occur between the Government and the Offeror as part of the oral presentation.

**2.2 BEST VALUE**

Competitive negotiated best value trade off source selection procedures will be used to evaluate proposals and award will be made to responsible firm offering the best value for the alternate selected by the Government after evaluation of both the total evaluated contract price and non-priced technical factors.

The Government intends to evaluate proposals and award a contract without discussions with offerors (except clarifications as described in FAR 15.306(a)). Therefore, the offeror’s initial proposal should contain the offeror’s best terms from a cost or price and technical standpoint. The Government reserves the right to conduct discussions if the Contracting Officer later determines them to be necessary. If the Contracting Officer determines that the number of proposals that would otherwise be in the competitive range exceeds the number at which an efficient competition can be conducted, the Contracting Officer may limit the number of proposals in the competitive range to the greatest number that will permit an efficient competition among the most highly rated proposals.

The technical evaluation factors other than cost or price, when combined, are approximately equal to price. Offerors are advised that if proposals are considered technically equal, price may become the determining factor. The Government may make trade-offs between price and technical merit when determining if the increased technical merit is worth the increased price.

To be considered for award, an Offeror must agree to provide a complete facility that meets all technical requirements and specifications set out in this Solicitation. The requirements and specifications contained in this Solicitation are mandatory.

**2.3 EVALUATION OF OFFERS**

The Technical Evaluation Board will evaluate all responsive technical proposals. The Contracting Officer will evaluate price proposals and will make a determination as to the Offeror's ability to perform the contract successfully.

Evaluation of offers and subsequent award will be made on the basis of price, and the following technical factors: **(1)** the Offeror's Technical Quality; **(2)** the Offeror's Evidence of Capability to Perform; **(3)** the adequacy and efficiency of the Operations and Maintenance Plans; and **(4)** the Offeror's Socio-Economic Status.

**2.3.1 PRICE EVALUATION**

The basic price offered will be the rate per Net Usable Square Foot (NUSF). Refer to Paragraph 3.14 of this Solicitation for a definition of NUSF. This price shall be used to determine the total annual rental to be paid, adjusted for any discrepancies in the quantity of space delivered against the amount offered and accepted, as described elsewhere in this Solicitation.

If annual CPI adjustments in operating expenses are included, the Offeror shall be required to submit the offer with the total "gross" annual price per rentable square foot and a breakout of the "base" price per rentable square foot for services and utilities (operating expenses) to be provided by the Lessor. The "gross" price shall include the "base" price. The first year's adjusted base price per rentable square foot will be the new base price for the second year of the lease. The second year will be the new base year upon which annual adjustments will be made; beginning with the second year of the lease and each year thereafter, the Government shall pay an adjusted rent for changes in annual costs based upon the annual CPI index.

**A. Present Value Price Evaluation**

*(1) The Offeror must submit plans and any other information to demonstrate that the rentable space yields Net Usable space within the required Net Usable range. The Government will convert the rentable prices offered in GSA Form 1364 to Net Usable prices, which will subsequently be used in the price evaluation.*

*(2) Evaluation of offered prices will be on the basis of the annual shell rental rate per Net Usable square foot, including any option periods and for all items, which will be reimbursed to the Lessor by lump sum payment (the costs for these items are present value; therefore, it will not be discounted.) The Government will use that data to perform a net present value price evaluation by reducing the prices per annual shell Net Usable square foot to a composite annual Net Usable square foot price as follows:*

(a) Parking and wayward areas will be excluded from the total square footage but not from the price. For different types of space, the gross annual per square foot price will be determined by dividing the total annual rental by the total square footage minus these areas.

(b) Free or reduced rent will be evaluated in the year in which it is offered. The gross, averaged annual per square foot price is adjusted to reflect free rent.

(c) Also as stated in the "Lease Acquisition Fee" paragraph, the amount of any commission paid to VA's Broker will not be considered separately as part of this price evaluation since the value of the commission is subsumed in the gross rent rate.

(d) To evaluate the real value of rent today, over the given term of the lease, the analysis will compound the amount of rent at a given (discount) rate based on the current discount rate available in White House Circular A-94, Appendix C. at weblink: [https://www.whitehouse.gov/omb/circulars\\_a094/a94\\_appx-c](https://www.whitehouse.gov/omb/circulars_a094/a94_appx-c). The gross annual per Net Usable square foot shell rental costs will be discounted annually at 2.3 percent (15-year firm term) or 2.5 percent (15-year firm term with one 5-year option; 20-year firm term) (OMB Circular No. A-94) over the entire term of the lease, to yield a net present value cost (NPV) per net usable square foot. This will provide an annual present value of the proposed rent, for years two through the term of the lease, at this 2.3 percent discount (15-year firm term) or 2.5 percent discount (15-year firm term with one 5-year option; 20-year firm term).

(e) If annual adjustments in operating expenses will not be made, the operating expenses will be both escalated at 1.95 percent (15-year term) or 2.0 percent (15-year firm term with one 5-year option; 20-year firm term) compounded annually and discounted annually at 2.3 percent (15-year firm term) or 2.5 percent (15-year firm term with one 5-year option; 20-year firm term), then added to the net Present Value Cost (PVC) to yield the gross PVC.

(f) If annual adjustments in operating expenses will be made, the annual per square foot price, and the base cost of operating expenses, will be discounted annually at 2.3 percent (15-year firm term) or 2.5 percent (15-year firm term with one 5-year option; 20-year firm term) to yield a net PVC per square foot.

(g) To the gross PVC will be added:

1. The cost of Government-provided services not included in the rental escalated at 1.95 percent (15-year term) or 2.0 percent (15-year firm term with one 5-year option; 20-year firm term) compounded annually and discounted annually at 2.3 percent (15-year firm term) or 2.5 percent (15-year firm term with one 5-year option; 20-year firm term).

2. The annualized (over the full term) per ANSI/BOMA Office Area square foot cost of any items, which are to be reimbursed in a lump sum payment. (The cost of these items is present value; therefore, it will not be discounted.)

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3. The cost of relocation of furniture, telecommunications, replications costs, and other move-related costs, if applicable.

**2.4 TECHNICAL EVALUATION**

The technical quality of the offer will be evaluated on the four factors listed below. Technical proposals will be evaluated by a Technical Evaluation Board.

The technical award factors are Technical Quality, Evidence of Capability to Perform, Operation and Maintenance Plan, and the Offeror’s Socio-Economic Status. The Offeror is required to submit drawings, narratives, and calculations that address this factor and all of its sub-factors. Submittal requirements for these materials are in SECTION 10. All technical factors are listed in descending order of importance.

**2.4.1 FACTOR NO. 1 – TECHNICAL QUALITY**

The subfactors within Factor No. 1 (Technical Quality) are as follows:

**SUBFACTORS:**

**A. Quality of Building & Design Concept**

This factor considers the interior functional and spatial relationships shown in the Offeror’s floor plan. The space offered shall be of shape and dimensions that will accommodate the space program and interior functional requirements of VA Outpatient Clinic. Consideration will be given to the number and size of floors, column placement, shape of footprint, circulation systems, and placement of mechanical, plumbing, and electrical service spaces. The Contracting Officer will reject buildings that are unsuitable in configuration for VA clinic space.

The exterior design shall be subject to technical and aesthetic review and approval of the Contracting Officer. The building shall be of permanent materials and shall be compatible with its surroundings. Acceptable facades include stone, marble, brick, stainless steel or aluminum curtain wall systems, or other permanent materials. Overall, the building must project a professional and aesthetically pleasing appearance. Site and building design shall present a clear and direct entry sequence for patients and visitors.

**B. Quality of Site Characteristics**

This factor considers the Offeror’s site or existing building and the characteristics of the site’s location. This factor does not consider development of the site but rather the undeveloped site. Evaluation for this factor will consider access from adjoining roads to the site, location of amenities in relation to the site, site adjacencies, and the sites aesthetic quality.

**C. Quality of Site Development**

This factor considers the Offeror’s development of the site to accommodate VA’s conceptual building footprint including the required setbacks; the ingresses and egresses to and from the main (public), emergency, and staff entrances; and loading dock and service entrances;

accessible parking lots and walkways; traffic patterns to maximize the flow of vehicles to and from the main thoroughfare; and how the landscaping design fits the surrounding areas, adheres to local landscaping codes, and provides an aesthetically pleasing atmosphere.

## 2.4.2 FACTOR NO. 2 – EVIDENCE OF CAPABILITY TO PERFORM

The sub-factors within Factor No. 2 (Evidence of Capability to Perform) are as follows:

### SUBFACTORS:

#### A. Past Performance

In accordance with FAR 15.305(a)(2), the Offeror (inclusive of the offering entity, key personnel, major subcontractors, and predecessor companies) must provide examples of and references for past performance as a prime contractor during the past three (3) years, as well as those contracts and subcontracts currently in progress. Past performance information is relevant information, for future source selection purposes, regarding a Contractor's actions under a previously awarded contracts. The past performance evaluation results in an assessment of the Offeror's probability of meeting the solicitation requirements. The past performance evaluation considers each Offeror's demonstrated recent and relevant record. The Offeror must provide examples of past performance, as a prime contractor, in successfully building, renovating, and maintaining facilities comparable in size and complexity to the one described in this Solicitation. The comparability of the projects for which Past Performance is provided will be evaluated. Medical facility projects that are comparable in size and complexity or exceed the size and complexity of this project will be considered more comparable than those that are smaller in size and less complex than this project. In the context of the above, VA projects are more comparable than non-VA federal government projects, which are more comparable than non-federal government projects. Non-medical facility projects will be considered the least comparable.

In conjunction with comparability, the Offeror's past performance will be evaluated based upon the following:

- Timeliness of Performance
- Cost Control
- Effective Management
- Customer Satisfaction
- Quality Awards
- The Technical Success of Past Projects
- Small business subcontracting
- Other (as applicable) (e.g., late or nonpayment to subcontractors, trafficking violations, tax delinquency, failure to report in accordance with contract terms and conditions, defective cost or pricing data, terminations, suspension and debarments).

**Past Performance Survey Form.** Include the following information for each contract and subcontract performed by the **Offeror and/or key personnel** during the past three (3) years, as well as those contracts and subcontracts currently in progress. A separate record must be

completed for each contract and subcontract. A Past Performance Survey Form is located in the FORMS part of this SFO and includes the following:

- Name of the Offering Entity
- DUNS of the Offering Entity
- Company Name of Awarded Entity Performing for Survey
- DUNS of Awarded Entity Performing for Survey
- Names and Titles of Key Personnel Associated with Performing on Survey and list major responsibilities/accomplishments
- Name and Address of Contracting Activity
- Contract Number
- Type of Contract
- Total Contract Amount and Status (List Lease Term, if applicable)
- Description and Location of Contract Work, to **Include Relevancy to Proposed Project**
- List of Major Subcontractors
- Contracting Officer or Individual Responsible for Signing Contract and Voice/FAX Numbers
- Project Manager and Voice/FAX Numbers
- Resident Engineer/Contracting Officer's Technical Representative or Construction Supervisor and Voice/FAX Numbers
- Administrative Contracting Officer or Individual Responsible for Administering the Contract (if different from Contracting Officer above) and Voice/FAX Numbers
- Date of Award and Date of Completion – Offerors shall provide a specific narrative explanation describing the objectives achieved and detailing how the effort is relevant to the requirement of this solicitation

Offeror shall submit Past Performance Reference Check Questionnaire Form for each Past Performance Reference. The Past Performance Forms are located in SFO PART VIII FORMS.

**Past Performance Reference Check Questionnaire.** To be considered for Past Performance Evaluation, a separate record must be completed for each contract and subcontract referenced in the Past Performance Survey Form, submitted by the Offeror's references. The past performance information collected will be evaluated to determine the quality and usefulness as it applies to performance confidence assessment of proposed Past Performance in Form.

The Offeror shall be responsible for ensuring that each of the References, as listed in their submittal (**Past Performance Survey Form**) receives, completes, and returns a Past Performance Reference Check Questionnaire Form, to VA's Broker, Bill Craig of JLL. The completed Past Performance Reference Check Questionnaire Form will **only** be accepted if emailed directly from the past performance reference directly to Bill.Craig@am.jll.com no later

than the proposal due date established for receipt of offers, 4:00 PM ET, December 1, 2017. The "subject" line in the submission email shall clearly indicate:

"VA101-17-R-0320 (Tulsa), *name of Offeror*, Completed Past Performance Reference Check Questionnaire"

The Government will acknowledge receipt to the sender of the email. However, the Contracting Officer will not provide information to Offerors as to whether or not a Past Performance Reference Check Questionnaire Form was or was not received. Offerors should allow adequate time for their references to complete the Past Performance Reference Check Questionnaire forms and for them to be sent to the appropriate recipients within the allocated timeframe.

The Government reserves the right to contact references for further information about performance. The accuracy of past performance data and reference data, including phone numbers of the points of contact are the full responsibility of the Offeror and inaccuracy may result in non-consideration of the reference. In the event the evaluation team discovers misleading, falsified, and/or fraudulent past performance ratings, the Offeror shall be eliminated from further consideration for award. Falsification of any proposal submission, documents, or statements may subject the Offeror to civil or criminal prosecution under Section 1001 of Title 18 of the United States Code.

In the case of an offeror without a record of relevant past performance or for whom information on past performance is not available, the offeror may not be evaluated favorably or unfavorably on past performance.

**B. Financial Resources**

Offeror's shall submit a financial plan to reduce risk and meet contractual deliverables on time and on budget. VA will evaluate the Offeror's plan for funding the project including design, construction and operation of the facility. Consideration is given to the reliability of funding mechanisms, the risk associated with the Offeror's plan and the Offeror's financial resources to meet short and long-term funding needs of the project.

Offeror must clearly and specifically identify how it will meet the near-term funding requirements for the project including, but not limited to land acquisition, payment of commissions and professional fees and equity related to securing any debt funding, if any, anticipated for the project. The plan must specifically identify the amount of those costs, the timing of the costs and the sources of funding those costs.

Additionally, the Offeror must provide satisfactory evidence of two (2) conditional commitments of funds in an amount necessary to prepare and/or construct the space. Each commitment must be signed by an authorized bank officer or other financial institution and must state that the officer has reviewed the Offeror's project and terms of Offeror's cost proposal to VA. At a minimum, each conditional commitment of funds must state the following:

- Amount of Loan;
- Loan Term in Years;
- Annual Percentage Rate;

- Length of Loan Commitment;
- Amortization Period
- Name of the Principal(s) Involved;
- Type of Debt Funding – Bond vs. Traditional Amortizing Loan;
- Contact Information for Lender; and
- The Purpose of the Loan.

Offeror must also provide evidence of financial resources sufficient to prosecute the work. Such evidence must include:

- A Statement of Offeror’s Financial Condition;
- Equity Source(s) for this project;
- Back-up Equity Source for this project;
- Financial Statements, Including Statement of Net Worth, Balance Sheets, and Profit and Loss Statements for the prior three years. The financial statements must include a certification or statement from a Certified Public Accountant (CPA) that the financial statements being presented to VA fairly present Offeror’s financial condition.

If Offeror is an individual and personal financial information is being provided as evidence, the following is required:

- Personal Financial Statements, to include Income Statement for the preceding 12 months, Balance Sheet, a Statement of Net Worth. These financial statements must be prepared and include a certification or statement from a Certified Public Accountant (CPA) that the financial statements being presented to VA fairly present Offeror’s financial condition.
- Individual tax returns for the prior three years,
- Statements from banks or other financial institutions that provide an independent verification of the assets presented in the financial statements.

This information MUST be included in the Offeror’s initial technical proposal. All financial information is confidential and will not be shared. If requested by the Contracting Officer, additional or updated information must be provided.

Financial Resources Plans (“Plans”) that present less risk of successful implementation will be rated more highly. Plans of Offerors who demonstrate greater financial strength, liquidity, credit availability and assets will be rated more highly. Plans that propose Offeror’s own equity resources will be rated more highly than plans that propose the use of third-party equity. Plans that provide more alternative sources of financing and more certain and reliable sources of financing will be rated more highly.

If requested by the Contracting Officer, additional supporting more information may be required.

**C. Design Team Qualifications**

Provide a completed SF 330, "Architect-Engineer Qualifications" for each individual or firm on the Lessor’s design team. Identify key personnel that are to be committed to the project. In Part I, Section H of SF 330, provide a description of outstanding commitments for each firm



and key personnel. As a minimum, the design team shall include entities providing the following services: Architecture, Civil Engineering, Mechanical Engineering, Fire Protection, Electrical Engineering, Interior Design, and appropriate Low Voltage Engineering (Structured Telecommunications Cabling, Security, Audio Visual, and Special Systems).

Provide a copy of the license or certification of the individual(s) and/or firm(s), providing architectural and engineering design services, proving their ability to practice in the state where the facility is located. Low-voltage designers shall be BICSI-certified for structural cabling, and shall have OEM credentials for the Special Systems listed in 6.8.1.G, Special Systems Specific Requirements.

Lessor shall maintain the same design team for the duration of the design development and construction process. Design team firm and key personnel shall not be changed without prior approval by the Contracting Officer.

In the initial offer and prior to award, the Offeror shall provide evidence of a firm commitment of teaming arrangements with the architect firm(s) that are presented in the Lessor's proposal in the form of a letter on each company's letterhead addressed to the Contracting Officer from the principal(s) of each of the respective firms.

**D. Contractor Qualifications**

Provide a completed GSA Form 527, "Contractor's Qualifications and Financial Information" for the General Contractor, Mechanical Contractor, and Electrical Contractor; except Section V need not be completed. In Section VII of Form 527, provide a description of outstanding commitments, names and qualifications of key personnel, and any other information related to experience, competency, and performance capabilities with construction projects similar in scope to that which is required herein.

Provide a copy of the license in the state where the facility is located for the individual(s) and/or firm(s) proposed as contractors. If the Lessor is also the Contractor, information provided in response to paragraphs Past Performance and Financial Resources above need not be duplicated.

Lessor shall maintain the same general contractor for the duration of the construction process. General contractor firm and key personnel shall not be changed without prior approval by the Contracting Officer.

The Offeror must submit the name and qualifications of the proposed Commissioning Provider. Include relevant experience and references. The Commissioning Provider must be approved by the Contracting Officer.

In the initial offer and prior to award, the Offeror shall provide evidence of a firm commitment of teaming arrangements with the general contractor that are presented in the Lessor's proposal in the form of a letter on each company's letterhead addressed to the Contracting Officer from the principal(s) of each of the respective firms.

**2.4.3 FACTOR NO. 3 – OPERATIONS AND MAINTENANCE PLAN**

The sub-factors within Factor No. 3 (Operations and Maintenance Plan) are as follows:

The following evaluation criteria will consider the adequacy and efficiency of the proposed Operations and Maintenance Plan to maintain standards of cleanliness, orderliness, and repair for the entire proposed facility. Each sub-factor must be addressed in narrative or chart format. The Plan must address the following subfactors:

**SUBFACTORS:**

- A. Interior and Exterior Maintenance of Building and Grounds**
- B. Routine and Emergency Calls - Procedures and Response Times**
- C. Staffing Plan, Administrative Procedures, and Quality Control Plan**

**2.4.4 FACTOR NO. 4 – SOCIO-ECONOMIC STATUS**

This factor does not have any individual sub-factors.

For the purposes of this solicitation and resultant contract (lease), North American Industry Classification System (NAICS) codes is 531120. The small business size standard is \$38.5 million. Under this classification, a concern is considered a small business if its average annual receipts for its preceding three (3) fiscal years do not exceed the size standard reflected. Prime and Joint Ventures submitting a proposal in response to this solicitation must meet the small business size standard.

Eligible Service-Disabled Veteran-Owned Small Businesses, Veteran-Owned Small Businesses, or Small Businesses shall receive credit for their status. Service-Disabled Veteran-Owned Small Businesses will receive full credit for this evaluation criteria; Veteran-Owned Small Businesses will receive partial credit greater than all other Small Businesses, which will receive partial credit.

**SMALL BUSINESS**

In order to receive credit for any small business classification, as a component of these evaluation criteria, small businesses must:

- Register and provide a DUNS Number validated in SAM.GOV
- Completed Representations and Certifications in SAM.GOV that have been entered or updated **within the last 12 months**, are current, accurate, complete, and applicable to this solicitation (**including the business size standard applicable to the NAICS code referenced for this solicitation**)
- Provide the SAM.GOV print out verifying offering entity’s status for NAICS 531120
- Provide SBA web print out showing registration or a signed acknowledgement of application from the Small Business Administration

**SDVOSB and VOSB**

Status as a Service-Disabled Veteran-Owned Small Business is determined in accordance with 13 CFR Parts 125.8 through 125.13. Additionally, the SDVOSB or VOSB evaluation criteria, **the offeror MUST be registered and have an active status in the Vendor Information Pages (VIP) database at [www.vetbiz.gov](http://www.vetbiz.gov)**. Offerors must provide a copy of the Center for Veterans Enterprises (CVE) Verification letter **at initial offer and with final revised proposals**. The Offeror's DUNS must correspond to the DUNS in SAM.GOV.

The core requirements for a company to become verified are:

- The Veteran owner(s) have direct, unconditional ownership of at least 51% of the company (38 CFR 74.3) and have full decision making authority (38 CFR 74.4 (g));
- The Veteran manages the company on both a strategic policy and a day-to-day basis (38 CFR 74.4);
- The Veteran holds the highest officer position (38 CFR 74.4(c)(2));
- The Veteran should be the highest compensated employee unless there is a logical explanation otherwise submitted by the Veteran as to how taking a lower salary than other employee(s) helps the business (38 CFR 74.4 (g) (3)); and
- The Veteran has the managerial experience of the extent and complexity needed to run the company.

#### **JOINT VENTURES**

For purposes of this solicitation a Joint Venture (JV) is a Partnership. An Offeror may submit a proposal in the form of a Joint Venture only if the existing Joint Venture has a corresponding DUNS Number in <https://www.SAM.gov> and **all the proposal submission documents are in the name of the existing Joint Venture, not the individual partners of the Joint Venture.**

These include, but are not limited to:

- GSA Form 3518
- GSA Form 1364A
- GSA Form 1217
- Financial Resource Commitment Letters

Offerors who are an existing Joint Venture may submit a proposal under this solicitation subject to the following conditions:

1. The Joint Venture is registered in SAM.GOV and has a corresponding DUNS Number;
2. The Joint Venture meets the definition of a Joint Venture for size determination purposes (FAR 19.101(7)(i));
3. The Joint Venture must meet the requirements of 13 CFR 125.15(b);
4. The Joint Venture fills out and submits the Representations and Certifications in Section K; and,
5. The Offeror must submit a complete copy of the Joint Venture agreement that established the relationship, disclosing the legal identity of each partner of the Joint Venture, the relationship between the partners, the form of ownership of each team member, any limitations on liability or authority for each partner, and a specific statement of what resources each partner provides the teaming arrangement. In addition, the existing Joint Venture must:

- a. Clearly identify the entities which make up the Joint Venture relationship, including disclosure of the primary point of contact for each of the partners;
  - b. Disclose the member of the Joint Venture that is designated as the "team lead," and clearly explain the specific duties/responsibilities of the "team lead" relative to the other members of the team and to the Government;
  - c. Describe the specific duties/responsibilities of each partner of the team as they relate to each other and explain the specific duties/responsibilities that each team member will have for purposes of contract performance under this contract; and,
  - d. Address the duration of the Joint Venture, including when it became effective, when it expires, and the basis for determination.
6. If the Joint Venture meets the small business size determination (FAR19.101(7)(i)), each Joint Venture partner must be registered in SAM.GOV, have a corresponding DUNS Number, and provide the SAM.GOV print out verifying each entities status for NAICS 531190.
7. A joint venture may be considered a Service-Disabled Veteran-Owned Small Business if:
- a. The Joint Venture is registered and verified in the Vendor Information Pages (VIP) database at [www.vetbiz.gov](http://www.vetbiz.gov). Offerors must provide a copy of the Center for Veterans Enterprises (CVE) Verification letter. The Offeror's DUNS must correspond to the DUNS in SAM.GOV.
  - b. Each other concern is small under the size standard corresponding to the NAICS code assigned to the procurement
  - c. The Joint Venture meets the requirements of paragraph 7 of the explanation of Affiliates in 19.101; and
  - d. The Joint Venture meets the requirements of 13 CFR 125.15(b)

**Small Business Subcontracting Plan.** If the contractor is offering as a Large Business and subcontracting opportunities exist, the offer must include with the **initial offer** a Small Business Plan as defined in FAR 52.219-8, FAR 52.219-9, and VAAR 852.219-9 which are included by reference in this solicitation. An acceptable template can be found on the following website: <http://www.va.gov/oal/business/fss/sbsp.asp>. This is a suggested format only. Other formats are acceptable; however, all identified elements must be included for your plan to be processed and approved. Additional guidance is included in FAR 52.219-9. The subcontracting plan will be evaluated and rated on the demonstrated plan of meeting or exceeding VA's small business goals outlined in the table below and the following:

- Reflects a valid corporate commitment between all parties in providing subcontracting opportunities for small business, small disadvantaged business, women-owned small business, HUBZone small business, veteran-owned small business, and service-disabled veteran-owned concerns. Includes the strength and specificity of each corporate commitment (i.e., what type of commitment, how binding is the commitment, how specific is the commitment to this proposed effort, and what types of tasks are included in these subcontracting opportunities).
- Reflects a one year history demonstrating your corporate commitment to meet your subcontracting goals/targets by providing Individual Subcontracting Report (ISR), for those contracts/projects in which you are submitting under Past Performance. If goals were not met on the ISR, provide an explanation as to why the goals/targets were not met.

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- Demonstrates realistic targets expressed in dollars and in percentages of the total proposed subcontracting dollars for each small business category listed above.
- Reflects compliance, at a minimum, with VA goals listed below.

Category	Goal
Small Business	17.5%
Veteran-Owned Small Business	5%
Service-Disabled Veteran-Owned Small Business	3%
Small Disadvantaged Business (including Section 8(a))	5%
Women-Owned Small Business	5%
Historically Underutilized Business Zone (HUBZone) Small Business	3%

For Small Businesses: If the Offeror is a small business concern, the Offeror is not required to submit a small business plan.

The subcontracting plan submitted with the offer will be evaluated on the extent to which the proposal provides Small Business Subcontracting targets that meet the Department of Veteran Affairs Small Business goals for this project and the extent to which the offeror’s Small Business Subcontracting Plan establishes reasonable efforts demonstrating the subcontracting targets can be met during the performance of the contract. **Failure to submit subcontracting plan at the time of initial offer shall make the offeror ineligible for award of the contract.**

**2.5 ZONING REQUIREMENTS**

**EDITING NOTE: The following paragraph will apply if VA has not obtained an assignable option on the property.**

Provide evidence of compliance with local zoning laws or evidence of variance, if any, approved by the proper local authority. Provide evidence of compliance with any specific zoning conditions that may be required in order to develop the property. At the discretion of the Contracting Officer, other forms of documentation demonstrating the probability of receiving such variances may be acceptable.

**2.6 CONTROL OF PROPERTY INTENTIONALLY DELETED**

**EDITING NOTE: The following paragraph will apply if VA has obtained an assignable option on the site.**

**2.7 EVIDENCE OF CAPABILITY TO PERFORM AFTER AWARD**

Within 60 calendar days after award, the successful Offeror/Lessor shall provide the Contracting Officer with evidence of the following:

A firm commitment of funds in an amount sufficient to perform the work.

Satisfactory title showing fee simple ownership of the property, or an option to lease property for longer than the duration of the lease term, including all renewal options. Fee simple title or option to lease must be free of any encumbrances that may limit the rights, responsibilities or liabilities of the parties to the VA lease.

**FAILURE TO MEET ANY OR ALL OF THE REQUIREMENTS AS SET FORTH IN PARAGRAPHS 2.4.2 AND 2.7 INCLUDING SUB-PARAGRAPHS, WITHIN THE SPECIFIED TIMEFRAMES SHALL BE A BASIS FOR DETERMINATION OF NON-RESPONSIBILITY OR FOR TERMINATION OF THE CONTRACT FOR DEFAULT.**

**FAILURE ON THE PART OF THE GOVERNMENT TO ENFORCE ITS RIGHTS TO DECLARE A DEFAULT WILL NOT BE DEEMED A WAIVER OF ANY OF THE GOVERNMENT'S RIGHTS UNDER THIS SOLICITATION.**

**2.8 INITIAL OFFERS; COMMUNICATIONS WITH OFFERORS**

As stated in the FAR Provision 52.215-1 in this section, the Government reserves the right to evaluate proposals and award a contract without discussions with offerors (except clarifications as described in FAR 15.306(a)). Therefore, the offeror's initial proposal should contain the offeror's best terms from a price and technical standpoint. This does not preclude the contracting officer from holding discussions if it is determined negotiations are necessary.

After receipt and evaluation of initial proposals, the Contracting Officer may communicate with Offerors in accordance with FAR 15.306(d).

**2.9 COMPETITIVE RANGE**

After evaluating all proposals in accordance with Paragraph 2.2 above based on the ratings of each proposal against all evaluation criteria, if the Contracting Officer determines discussions are necessary, then based on the ratings of each proposal against all evaluation criteria, the Contracting Officer shall establish a competitive range comprised of all of the most highly rated proposals, unless the range is further reduced for purposes of efficiency. The

Contracting Officer may limit the number of proposals in the competitive range to the greatest number that will permit an efficient competition among the most highly rated proposals.

**2.10 DISCUSSIONS**

VA will conduct discussions only with those Offerors who have been placed in the competitive range as established under procedures at Paragraph 2.9 above. VA Contracting Officer will conduct discussions on behalf of the Government in order to obtain the best value to the Government. Other VA personnel, including the Contracting Officer’s Representative named on the cover of this Solicitation, may assist the Contracting Officer.

**2.11 AWARD**

**2.11.1 BEST VALUE**

The lease will be awarded to the Offeror whose offer represents the best value to the Government, price and other factors considered. For this procurement, price is equal to technical factors. An award will be made based on a comparative assessment of proposals against all selection criteria in the Solicitation.

To be considered for award, an Offeror must agree to provide a complete facility that meets all technical requirements and specifications set out in this Solicitation. The requirements and specifications contained in this Solicitation are mandatory.

**2.11.2 LEASE COMPONENTS**

At a minimum, the proposed lease shall consist of:

- Standard Form 2 - U.S. Government Lease for Real Property
- Form 3517B, General Clauses
- Form 3518, Representations and Certifications
- Form 3516A, Solicitation Provisions
- Property Management Agreement
- All the provisions of the SFO
- The pertinent provisions of the offer

**NOTE:** For purposes of release of information under the Freedom of Information Act (FOIA) or other applicable statutes or regulations, the individual itemized costs as set forth in Schedule B and other proprietary information are considered procurement-sensitive information and are not subject to release.

**2.11.3 AWARD**

The award by the Government occurs upon execution of the lease by VA Contracting Officer and issuance of a letter by VA Contracting Officer indicating that the Government accepts the Offeror’s proposal.

If an award is not made based on the initial proposals, the following process will occur:

Each Offeror still in the competitive range will be given an opportunity to submit a "final proposal revision" to clarify and document understandings reached during negotiations. Once final proposal revisions are received, all discussions will cease.

After the conclusion of negotiations and a review of final proposal revisions are completed, the Contracting Officer may award the lease.

**2.11.4 DEBRIEFINGS**

The Government will disclose the items referenced in accordance with Federal Acquisition Regulation (FAR) 15.505 and 41 U.S.C § 3705 for pre-award debriefings and Federal Acquisition Regulation (FAR) 15.506 and 41 U.S.C § 3704 for post-award debriefings.

**2.12 POST-AWARD KICKOFF MEETING**

After Lease Award, VA will hold a Post-Award Kickoff Meeting at a location, date and time to be determined by VA. In attendance will be the Contracting Officer, the VA Project Manager, the Administrative Contracting Officer (ACO)/Contracting Officer's Representative (COR), VA's contract Real Estate Broker, members of the Veterans Health Administration (VHA) leadership and user group, and the Lessor and key members of the Lessor's design and construction teams. The purpose of the Post-Award Kickoff Meeting is to acquaint the parties, define all participants' roles and responsibilities, review the delegation of authority from the Contracting Officers to the ACO/COR and to review contract clauses and requirements. If the Lessor is prepared, and the ACO/COR and local user group are ready, a design meeting may be held immediately after the conclusion of the Post-Award Kickoff Meeting.

**2.13 PREAWARD ON-SITE EQUAL OPPORTUNITY COMPLIANCE EVALUATION (FEB 1999)**

If a contract in the amount of \$10 million or more will result from this solicitation, the prospective Contractor and its known first-tier subcontractors with anticipated subcontracts of \$10 million or more shall be subject to a pre-award compliance evaluation by the Office of Federal Contract Compliance Programs (OFCCP), unless, within the preceding 24 months, OFCCP has conducted an evaluation and found the prospective Contractor and subcontractors to be in compliance with Executive Order 11246.

**2.14 SERVICE OF PROTEST (SEPT 2006)**

(a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the Government Accountability Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from:



Tamim Chowdhury  
Contracting Officer  
U.S. Department of Veteran Affairs  
Office of Facilities Acquisition, (003C4)  
425 I Street, NW, Room 6E411B  
Washington, DC 20001

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

**2.15 52.233-3 -- PROTEST AFTER AWARD**

As prescribed in [33.106](#)(b), insert the following clause:

Protest after Award (Aug. 1996)

(a) Upon receipt of a notice of protest (as defined in FAR 33.101) or a determination that a protest is likely (see FAR 33.102(d)), the Contracting Officer may, by written order to the Contractor, direct the Contractor to stop performance of the work called for by this contract. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Upon receipt of the final decision in the protest, the Contracting Officer shall either --

(1) Cancel the stop-work order; or

(2) Terminate the work covered by the order as provided in the Default, or the Termination for Convenience of the Government, clause of this contract.

(b) If a stop-work order issued under this clause is canceled either before or after a final decision in the protest, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule or contract price, or both, and the contract shall be modified, in writing, accordingly, if --

(1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and

(2) The Contractor asserts its right to an adjustment within 30 days after the end of the period of work stoppage; provided, that if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon a proposal at any time before final payment under this contract.

(c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.

(d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

(e) The Government's rights to terminate this contract at any time are not affected by action taken under this clause.

(f) If, as the result of the Contractor's intentional or negligent misstatement, misrepresentation, or miscertification, a protest related to this contract is sustained, and the Government pays costs, as provided in FAR 33.102(b)(2) or 33.104(h)(1), the Government may require the Contractor to reimburse the Government the amount of such costs. In addition to any other remedy available, and pursuant to the requirements of Subpart 32.6, the Government may collect this debt by offsetting the amount against any payment due the Contractor under any contract between the Contractor and the Government.

**SECTION 3 MISCELLANEOUS**

**3.1 SUBSTITUTIONS FOR SPECIFIC BRAND NAMES**

When specific equipment is cited using the brand name, model number, etc., a comparable or equal product may be provided in lieu of cited equipment in accordance with the Brand Name clause provided in Schedule B of the Solicitation. Any substitutions need to be approved by the Contracting Officer or his/her designee.

**3.2 UNIT COSTS FOR ADJUSTMENTS**

Schedule E of this Solicitation indicates various types of materials anticipated for floors, walls, and ceilings. Additionally, several paragraphs in this Solicitation specify means for determining quantities of materials not specified in Schedule E. Government projections of these various materials have been made to assist the Offeror in cost estimating and have been included on Section 1 of Schedule C. Actual quantities may not be determined until after the lease is awarded and the space layout completed. To enable an equitable settlement if the final Government layout departs from the projection, the quantities specified on Section 1 of Schedule C are to be included in the per square foot rate being proposed. A unit cost for each of these materials is required. VA will use each unit cost to make a lump sum payment at time of acceptance of the building or to negotiate a rental increase if the amount of material required by the layout is more than specified. If the amount of material is less than specified, VA will take credit from the initial rental payment.

**3.3 UNIT PRICES FOR ALTERATIONS OF \$100,000 OR LESS**

The Offeror is required to submit a list of "Unit Prices for Alterations" for any alterations required during the first year. This list will be used, after acceptance by VA, for contracts for alterations costing \$100,000 or less. These prices may be indexed or re-negotiated to apply to subsequent years of the lease upon mutual agreement of the Lessor and Government. (Use Schedule C for this purpose.)

Prices for changes in quantities of the types or styles of finish materials requested by the Government shall be computed using the unit costs for the materials in question from Section 1 of Schedule C.

Where unit prices for alterations are not available, the Lessor may be requested to provide a price proposal for the alterations. Orders will be placed by issuance of a GSA Form 276, Supplemental Lease Agreement. The clauses entitled "GSAR 552.232-75, Prompt Payment (SEP 1999)," "GSAR 552.232-70, Invoice Requirements (Variation) (SEP 1999)," and "GSAR 552.232-76, Electronic Funds Transfer Payment (MAR 2000) (Variation)" apply to orders for alterations (See GSA Form 3517B). All orders are subject to the terms and conditions of the lease.

Orders may be placed by the Contracting Officer or other authorized representatives when specifically authorized to do so by the Contracting Officer. The Contracting Officer will provide

the Lessor with a list of agency officials authorized to place orders and will specify any limitations on the authority delegated to agency officials. The agency officials are not authorized to deal with the Lessor on any other matters.

**3.4 SPECIAL WORK (INSTALLATIONS AND ALTERATIONS)**

The Government may require special installations in the space, such as computer rooms, vaults, or laboratories containing special air conditioning and heating controls, flooring and various electrical, plumbing, and mechanical facilities, and equipment not otherwise specified in this Solicitation. The Government reserves the right to contract separately for such facilities, equipment and/or installations; or it may require the Offeror to perform such work. In the event the Government requires the Offeror to complete such installations, the Offeror will be required to submit a cost estimate to the Contracting Officer within 30 days after receipt of complete specifications for the special installation.

If the Government contracts with the Offeror to effect such installations, payment will be made on a lump-sum basis or through increased rental payments at the Government's option. (Increased rental payments will recognize residual values to the Owner and will include interest, if any, at a rate not in excess of the first mortgage.) In connection therewith, the successful Offeror will be required to accomplish such work on an actual cost basis, and the Government payment, therefore, will be computed on the basis of such.

The successful Offeror will be required to submit, not later than 30 days prior to the date of delivery and occupancy of the space and every year thereafter during the term of the lease, unit prices for such repetitive alteration work items such as (1) installation of electrical outlets, (2) installation of voice/data outlets, (3) erection and/or relocation of movable partitions, (4) lighting changes, and (5) special painting.

**3.5 TAX ADJUSTMENTS**

**3.5.1 PURPOSE**

This paragraph provides for adjustment in the rent ("Tax Adjustment") to account for increases or decreases in Real Estate Taxes for the Property after the establishment of the Real Estate Tax Base, as those terms are defined herein. Tax Adjustments shall be calculated in accordance with this Clause.

**3.5.2 DEFINITIONS**

The following definitions apply to the use of capitalized terms within this paragraph:

"Property" is the land, buildings and other improvements of which the premises (as fully described in the U.S. Government Lease for Real Property, SF2) form all or a part.

"Real Estate Taxes" are those taxes that are levied upon the owners of real property by a Taxing Authority (as hereinafter defined) of a State or Local Government on an ad valorem basis to raise general revenue for funding the provision of government services. The term

excludes, without limitation, special assessments for specific purposes, assessments for business improvement districts, and/or community development assessments.

"Taxing Authority" is a State, Commonwealth, Territory, County, City, Parish, or political subdivision thereof, authorized by law to levy, assess, and collect Real Estate Taxes.

"Tax Year" refers to the 12-month period adopted by a Taxing Authority as its fiscal year for the purpose of assessing Real Estate Taxes on an annual basis.

"Tax Abatement" is an authorized reduction in the Lessor's liability for Real Estate Taxes below that determined by applying the generally applicable Real Estate Tax rate to the Fully Assessed (as hereinafter defined) valuation of the Property.

"Unadjusted Real Estate Taxes" are the full amount of Real Estate Taxes that would be assessed for the Property for one full Tax Year without regard to the Lessor's entitlement to any Tax Abatements (except if such Tax Abatement came into effect after the date of award of the Lease), and not including any late charges, interest, or penalties. If a Tax Abatement comes into effect after the date of award of the Lease, "Unadjusted Real Estate Taxes" are the full amount of Real Estate Taxes assessed for the Property for one full Tax Year, less the amount of such Tax Abatement, and not including any late charges, interest, or penalties.

"Real Estate Tax Base" is the Unadjusted Real Estate Taxes for the first full Tax Year following the commencement of the Lease term. If the Real Estate Taxes for that Tax Year are not based upon a Full Assessment of the Property, then the Real Estate Tax Base shall be the Unadjusted Real Estate Taxes for the Property for the first full Tax Year for which the Real Estate Taxes are based upon a Full Assessment. Such first full Tax Year may be hereinafter referred to as the "Tax Base Year." Alternatively, the Real Estate Tax Base may be an amount negotiated by the parties that reflects an agreed-upon base for a Fully Assessed value of the property.

The Property is deemed to be "Fully Assessed" (and Real Estate Taxes are deemed to be based on a "Full Assessment") only when a Taxing Authority has, for the purpose of determining the Lessor's liability for Real Estate Taxes, determined a value for the Property, taking into account the value of all improvements contemplated for the Property pursuant to the Lease, and issued to the Lessor a tax bill or other notice of levy wherein the Real Estate Taxes for the full Tax Year are based upon such Full Assessment. At no time prior to the issuance of such a bill or notice shall the Property be deemed Fully Assessed.

"Percentage of Occupancy" refers to that portion of the Property exclusively occupied or used by the Government pursuant to the Lease. For buildings, the Percentage of Occupancy is determined by calculating the ratio of the rentable square feet occupied by the Government pursuant to the Lease to the total rentable square feet in the building or buildings so occupied, and shall not take into account the Government's ancillary rights including, but not limited to, parking or roof space for antennas (unless facilities for such ancillary rights are separately assessed). This percentage shall be subject to adjustment to take into account increases or decreases in the amount of space leased by the Government or in the amount of rentable space on the Property.

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**3.5.3 ADJUSTMENT FOR CHANGES IN REAL ESTATE TAXES**

After the Property is Fully Assessed, the Government shall pay its share of any increases and shall receive its share of any decreases in the Real Estate Taxes for the Property, such share of increases or decreases to be referred to herein as "Tax Adjustment." The amount of the Tax Adjustment shall be determined by multiplying the Government's Percentage of Occupancy by the difference between the current year Unadjusted Real Estate Taxes and the Real Estate Tax Base, less the portion of such difference not paid due to a Tax Abatement (except if a Tax Abatement comes into effect after the date of award of the Lease). If a Tax Abatement comes into effect after the date of award of the Lease, the amount of the Tax Adjustment shall be determined by multiplying the Government's Percentage of Occupancy by the difference between the current year Unadjusted Real Estate Taxes and the Real Estate Tax Base. The Government shall pay the Tax Adjustment in a single annual lump sum payment to the Lessor. In the event that this Tax Adjustment results in a credit owed to the Government, the Government may elect to receive payment in the form of a rental credit or lump sum payment.

If the Property contains more than one separately assessed parcel, then more than one Tax Adjustment shall be determined based upon the Percentage of Occupancy, Real Estate Tax Base, and Real Estate Taxes for each respective parcel.

After commencement of the Lease term, the Lessor shall provide to the Contracting Officer copies of all Real Estate Tax Bills for the Property, all documentation of Tax Abatements, credits, or refunds, if any, and all notices which may affect the assessed valuation of the Property, for the Tax Year prior to the commencement of the Lease Term, and all such documentation for every year following. Lessor acknowledges that the Contracting Officer shall rely on the completeness and accuracy of these submissions in order to establish the Real Estate Tax Base and to determine Tax Adjustments. The Contracting Officer may memorialize the establishment of the Real Estate Tax Base by issuing a unilateral administrative Supplemental Lease Agreement indicating the Base Year, the amount of the Real Estate Tax Base, and the Government's Percentage of Occupancy.

The Real Estate Tax Base is subject to adjustment when increases or decreases to Real Estate Taxes in any Tax Year are attributable to a) improvements or renovations to the Property not required by this Lease, or b) changes in net operating income for the Property not derived from this Lease. If either condition results in a change to the Real Estate Taxes, the Contracting Officer may re-establish the Real Estate Tax Base as the Unadjusted Real Estate Taxes for the Tax Year the Property is reassessed under such condition, less the amount by which the Unadjusted Real Estate Taxes for the Tax Year prior to reassessment exceeds the prior Real Estate Tax Base.

If this Lease includes any options to renew the term of the Lease, or be otherwise extended, the Real Estate Tax Base for the purpose of determining Tax Adjustments during the renewal term or extension shall be the last Real Estate Tax Base established during the base term of the Lease.

If any Real Estate Taxes for the Property are retroactively reduced by a Taxing Authority during the term of the Lease, the Government shall be entitled to a proportional share of any tax refunds to which the Lessor is entitled, calculated in accordance with this Clause.

Lessor acknowledges that it has an affirmative duty to disclose to the Government any decreases in the Real Estate Taxes paid for the Property during the term of the Lease. Lessor shall annually provide to the Contracting Officer all relevant tax records for determining whether a Tax Adjustment is due, irrespective of whether it seeks an adjustment in any Tax Year.

If the Lease terminates before the end of a Tax Year, or if rent has been suspended, payment for the Real Estate Tax increase due as a result of this section for the Tax Year will be prorated based on the number of days that the Lease and the rent were in effect. Any credit due the Government after the expiration or earlier termination of the Lease shall be made by a lump sum payment to the Government or as a rental credit to any succeeding lease, as determined in the Contracting Officer's sole discretion. Lessor shall remit any lump sum payment to the Government within 15 calendar days of payment or credit by the Taxing Authority to Lessor or Lessor's designee. If the credit due to the Government is not paid by the due date, interest shall accrue on the late payment at the rate established by the Secretary of the Treasury under Section 12 of the Contract Disputes Act of 1978, as amended (41 USC § 611), that is in effect on the day after the due date. The interest penalty shall accrue daily on the amount of the credit and shall be compounded in 30-day increments inclusive from the first day after the due date through the payment date. The Government shall have the right to pursue the outstanding balance of any tax credit using all such collection methods as are available to the United States to collect debts. Such collection rights shall survive the expiration of this Lease.

In order to obtain a Tax Adjustment, the Lessor shall furnish the Contracting Officer with copies of all paid tax receipts, or other similar evidence of payment acceptable to the Contracting Officer, and a proper invoice (as described in GSA Form 3517, General Clauses, 552.232-75, Prompt Payment) for the requested Tax Adjustment, including the calculation thereof. All such documents must be received by the Contracting Officer within 60 calendar days after the last date the Real Estate Tax payment is due from the Lessor to the Taxing Authority without payment of penalty or interest. FAILURE TO SUBMIT THE PROPER INVOICE AND EVIDENCE OF PAYMENT WITHIN SUCH TIME FRAME SHALL CONSTITUTE A WAIVER OF THE LESSOR'S RIGHT TO RECEIVE A TAX ADJUSTMENT PURSUANT TO THIS CLAUSE FOR THE TAX YEAR AFFECTED.

**3.5.4 TAX APPEALS**

If the Government occupies more than 50% of the Building by virtue of this and any other Government lease(s), the Government may, upon reasonable notice, direct the Lessor to initiate a tax appeal, or the Government may elect to contest the assessed valuation on its own behalf or jointly on behalf of Government and the Lessor. If the Government elects to contest the assessed valuation on its own behalf or on behalf of the Government and the Lessor, the Lessor shall cooperate fully with this effort, including, without limitation, furnishing to the Government information necessary to contest the assessed valuation in accordance with the filing requirements of the Taxing Authority, executing documents, providing documentary and testimonial evidence, and verifying the accuracy and completeness of records. If the Lessor initiates an appeal at the direction of the Government, the Government shall have the right to approve the selection of counsel who shall represent the Lessor with regard to such appeal, which approval shall not be unreasonably withheld, conditioned or

delayed, and the Lessor shall be entitled to a credit in the amount of its reasonable expenses in pursuing the appeal.

**3.6 INSURANCE ADJUSTMENTS**

The Government shall 1) make a single annual lump sum payment to the Lessor for its share based on the percentage of occupancy of any increase in hazard and liability insurance premiums during the lease term over the amount established as the base year premium, or 2) receive a lump sum payment for its share of any annual decreases for the duration of the lease in the insurance premium established as the base year premium.

The amount of lump sum payment shall be based upon evidence of insurance policy and payment submitted by the Lessor to the Contracting Officer. The Government shall be responsible for payment of any insurance premium increase over the base year only if the proper invoice and evidence of payment is submitted by the Lessor within 90 calendar days after the date the insurance premium is due from the Lessor to the insurance company. Base year insurance premium as referred to in this paragraph is the insurance premium for the first 12-month period coincident with Government occupancy of leased space in its entirety.

The Government will not pay for any portion of "terrorism insurance" (Terrorism Risk Insurance Act of 2002) obtained by the Lessor.

**3.7 OPERATING COSTS**

In the initial year of the lease, applicable costs listed on GSA Form 1217, Lessor's Annual Cost Statement, when negotiated and agreed upon, will be used to determine the base rate for operating costs. In the second year of the lease, the Government shall pay adjusted rent for changes in costs for cleaning services, supplies, materials, trash removal, landscaping, water, sewer charges, heating, electricity, and certain administrative expenses attributable to occupancy. The Lessor will present their actual costs for the first year with documentation of the paid invoices. In the initial year, these costs should be the best estimate that can be provided based upon the SFO requirements. The adjusted operating cost will be the new base. Each year thereafter, the Government shall pay an adjusted rent for changes in annual costs based upon the annual CPI index.

The amount of adjustment will be determined by multiplying the base rate by the annual percent of change in the Cost of Living Index. The percent change will be computed by comparing the index figure published for the month prior to the lease commencement date with the index figure published for the month prior which begins each successive 12-month period. For example, a lease which commences in June 2005 would use the index published for May 2005, and that figure would be compared with the index published for May 2006, May 2007, and so on, to determine the percent change. The Cost of Living Index will be measured by the Department of Labor revised Consumer Price Index for urban wage earners and clerical workers, U.S. city average, all items figure, (1982 to 1984 = 100) published by the Bureau of Labor Statistics. Payment will be made with the monthly installment of fixed rent. Rental adjustments will be effective on the anniversary date of the lease; however, payment of the adjusted rental rate will become due on the first workday of the second month following the



publication of the Cost of Living Index for the month prior to the commencement of each 12-month period.

If the Government exercises an option to extend the lease term at the same rate as that of the original term, the option price will be based on the adjustment during the original term. Annual adjustments will continue.

In the event of any decreases in the Cost of Living Index occurring during the term of the occupancy under the lease, the rental amount will be reduced accordingly. The amount of such reductions will be determined in the same manner as increases in rent provided under this paragraph.

The offer shall clearly state whether the rental is firm throughout the term of the lease or if it is subject to annual adjustment of operating costs as indicated above. If operating costs will be subject to adjustment, those costs shall be specified on GSA Form 1364A, Proposal to Lease Space, contained elsewhere in this SFO.

**The base for the operating cost adjustments will be established during negotiations based upon the Offeror's Final Cost Proposal, Line 27, of GSA Form 1217, Lessor's Annual Cost Statement.**

**3.8 CONTRACT CHANGES**

At any time, the Contracting Officer may make changes within the scope of the lease by a written order pursuant to the Changes Clause set forth in Paragraph 33 of GSA Form 3517B, attached hereto and made a part hereof, and provisions as set forth below. Changes in the design or the work initiated by the Lessor or the Lessor's Design Team or Contractor do not constitute a change for cost. Any such changes must be approved by the Contracting Officer. See design and construction documents afterward.

The clauses entitled "Changes" in FAR 52.243-4 and "Differing Site Conditions" in FAR 52.236-2 will be supplemented with the following two clauses. The clause in Paragraph 3.8.1 below will apply to negotiated changes exceeding \$500,000 and does not provide ceiling rates for indirect expenses. Such expenses will be included as part of the submission of certified cost and pricing data, and will be negotiated by the Contracting Officer and audited in accordance with Department of Veterans Affairs Acquisition Regulation (VAAR) 815.805-5. (A copy of this provision is available upon request.) When the negotiated change will be less than \$500,000, the clause specified in Paragraph 3.8.2 below will apply. Certificates of current cost and pricing data shall accompany proposals over \$100,000 and not exceeding \$500,000. If cost and pricing data are required by FAR for proposals of \$100,000 or less, the Contracting Officer may require that it be certified in accordance with FAR 15.403-4(a)(2). It must be emphasized that the indirect cost rates are ceiling rates only, and the Contracting Officer will negotiate the indirect expense rates within the ceiling limitations. The clauses are a result of an approved FAR deviation pursuant to Subpart 801.4.

**3.8.1 APPLICABLE TO CHANGES COSTING OVER \$500,000**

**A. Proposals for Changes**

When requested by the Contracting Officer, the contractor shall submit proposals for changes in work to the Contracting Officer or the Contracting Officer's designee. Proposals, to be submitted within 30 calendar days after receipt of request, shall be in legible form, original and two copies. The contractor shall provide cost or pricing data in accordance with the instructions in Table 15-2 of FAR 15-403-5 in the format indicated for "Modifications" or other format acceptable to the Contracting Officer. Proposals shall consist of an itemized breakdown that includes material quantities, unit prices, labor costs (separated into trades), construction equipment, etc. (Labor costs are to be identified with specific material placed or operation performed.) The contractor shall execute a Certificate of Current Cost or Pricing Data in accordance with FAR 15-406-2. The contractor must obtain and furnish with each proposal an itemized breakdown and certificate as described above, signed by each subcontractor participating in the change regardless to tier.

**B. Tentative Pricing**

When the necessity to proceed with a change does not allow sufficient time to negotiate a modification, or because of failure to reach an agreement, the Contracting Officer may issue a change order instructing the contractor to proceed on the basis of a tentative price based on the best estimate available at the time, with the firm price to be determined later. Furthermore, when the change order is issued, the contractor shall submit a proposal for cost of changes in work within 30 calendar days.

**C. Settlement By Determination**

The Contracting Officer will consider issuing a settlement by determination to the contract, if the contractor's proposal required by Paragraphs 3.8.1A and 3.8.1B of this clause is not received within 30 calendar days or if agreement has not been reached.

**3.8.2 APPLICABLE TO CHANGES COSTING \$500,000 OR LESS**

**EDITING NOTE: Refer to PART IX for a Sample Certificate of Current Cost or Pricing Data.**

**A. Proposals for Changes**

When requested by the Contracting Officer, the contractor shall submit proposals for changes in work to the Contracting Officer or designee. Proposals, to be submitted within 30 calendar days after receipt of request, shall be in legible form, original and two copies, with an itemized breakdown that will include material, quantities, unit prices, labor costs (separated into trades), construction equipment, etc. (Labor costs are to be identified with specific material placed or operation performed.) The contractor must obtain and furnish with a proposal an itemized breakdown as described above, signed by each subcontractor participating in the change, regardless of tier. When requested by the Contracting Officer, the contractor and each subcontractor participating in the change, regardless of tier, shall execute a Certificate of Current Cost or Pricing Data in accordance with FAR 15-406-2. For proposals over \$100,000, the cost or pricing data shall be submitted in accordance with the instructions in Table 15-2 of FAR 15-403-5 in the format indicated for "Modifications" or other format acceptable to the

Contracting Officer. No itemized breakdown will be required for proposals amounting to less than \$1,000.

**B. Tentative Pricing**

When the necessity to proceed with a change does not allow sufficient time to negotiate a modification or if there is a failure to reach an agreement, the Contracting Officer may issue a change order instructing the contractor to proceed on the basis of a tentative price based on the best estimate available at the time, with the firm price to be determined later. Furthermore, when the change order is issued, the contractor shall submit a proposal for cost of changes in work within 30 calendar days.

**C. Settlement By Determination**

The Contracting Officer will consider issuing a settlement by determination to the contract, if the contractor's proposal required by paragraphs (a) and (b) of this clause is not received within 30 calendar days, or if agreement has not been reached.

**D. Allowances for Overhead and Profit**

Allowances not to exceed 10% each for overhead and profit for the party performing the work will be based on the value of labor, material, and use of construction equipment required to accomplish the change. As the value of the change increases, a declining scale will be used in negotiating the percentage of overhead and profit. Allowable percentages on changes will not exceed the following:

- 10% overhead and 10% profit on the first \$20,000
- 7-1/2% overhead and 7-1/2% profit on the next \$30,000
- 5% overhead and 5% profit on balance over \$50,000

Profit shall be computed by multiplying the profit percentage by the sum of the direct costs and computed overhead costs.

**E. Allowable Fee On Changes**

The prime contractor's or upper-tier subcontractor's fee on work performed by lower-tier subcontractors will be based on the net increased cost to the prime contractor or upper-tier subcontractor, as applicable. Allowable fee on changes will not exceed the following:

- 10% fee on the first \$20,000
- 7-1/2% fee on the next \$30,000
- 5% fee on balance over \$50,000

**F. Multiple Tiers**

Not more than four percentages, none of which exceed the percentages shown above, will be allowed regardless of the number of tiers of subcontractors.

**G. Credit Items**

Where the contractor's or subcontractor's portion of change involves credit terms, such items must be deducted prior to adding overhead and profit for the party performing the work. The contractor's fee is limited to the net increase to contractor of subcontractors' portions of cost computed in accordance herewith.

Where a change involves credit items only, a proper measure of the amount of downward adjustment in the contract price is the reasonable cost to the contractor if he/she performed the deleted work. A reasonable allowance for overhead and profit are properly includable as part of the downward adjustment for a deductive change. The amount of such allowance is subject to negotiation.

**H. Tax and Insurance**

Cost of Federal Old Age Benefit (Social Security) tax and of Workmen’s Compensation and Public Liability insurance appertaining to change are allowable. While no percentage will be allowed thereon for overhead or profit, prime contractor’s fee will be allowed on such items in subcontractors’ proposals.

**I. Items Included In Overhead and Fee**

Overhead and contractors fee percentages shall be considered to include insurance, other than mentioned herein; field and office supervisors and assistants; security police; use of small tools, incidental job burdens, and general home office expenses; and no separate allowance will be made therefore. Assistants to office supervisors include all clerical, stenographic, and general office help. Incidental job burdens include, but are not necessarily limited to, office equipment and supplies, temporary toilets, voice, and conformance to OSHA requirements. Items such as, but not necessarily limited to, review and coordination, estimating, and expediting relative to contract changes, are associated with field and office supervision and are considered to be included in the contractor’s overhead and/or fee percentage.

**J. Bond Premium Adjustment**

Bond premium adjustment, consequent upon changes ordered, will be made as elsewhere specified at the time of final settlement under the contract and will not be included in the individual change.

**K. Implementation of Changes**

Upon receipt of a written order from the Contracting Officer for a change(s), the Lessor shall immediately begin to implement such a change(s). Any dispute involving entitlement to additional compensation or additional time for the work performed will be resolved pursuant to the terms of the Disputes Clause, if not otherwise resolved by the parties. However, nothing in that clause shall excuse the Lessor from proceeding with the contract as changed.

Lump sum payment for changes shall be made upon completion, acceptance, and beneficial occupancy of the building.

**3.9 WAIVER OF CLAIMS FOR WASTE OR DAMAGES**

The Lessor will be required to waive the right to claim for waste or damages arising from the making or removing of alterations or special work (Paragraph 3.4).

The Lessor will be required to waive the right to claim for delay, waste, or damages arising from the acts, errors, or omissions of Lessor or the Lessor’s Design Team or Contractor.

All property placed in, upon, or attached to the premises to be leased that is provided by the Government or for which the Government pays by means of lump-sum (Schedule B items), shall be and remain the property of the Government, and may be removed or otherwise disposed of by the Government at its sole discretion. The Lessor will be required to waive the right to claims arising from the removal or disposal of any Government property that remains in, upon, or attached to the premises at the termination of the lease.

**3.10 LIQUIDATED DAMAGES**

**EDITING NOTE: The amount set for LDs may be adjusted for size and scope of the project and other relevant factors. The amount set should reflect the actual costs or damages to the government arising from delays on the part of the Lessor. Arbitrary or punitive LDs may not be enforceable.**

**CONSULTATION WITH COUNSEL IS STRONGLY RECOMMENDED.**

In case of failure on the part of the Lessor to complete the work within the time fixed in the lease contract or letter of award, the Lessor shall pay the Government as fixed and agreed liquidated damages, pursuant to this clause, the sum of Four Thousand Six Hundred Thirty Six (\$4,636.00) for each and every calendar day that the delivery is delayed beyond the date specified for delivery of all the space ready for acceptance and beneficial occupancy by the Government.

**3.11 RECORDATION REQUIREMENTS**

The Lessor will be required to execute and record a Memorandum of Lease in the land records of the county or other political subdivision in which the facility is located. Preparation of the Memorandum of Lease, recordation, and all expenses associated with this action are the responsibility of the Lessor. Acceptable evidence of recordation is a copy of the Memorandum of Lease bearing a recordation stamp, or other evidence of recordation as may be customary for the particular recordation office. This action must be accomplished within 30 calendar days after award. Evidence of such must be provided to the Contracting Officer.

**3.12 ADJUSTMENT FOR VACATED PREMISES**

In accordance with 552.270-16 Adjustment for Vacant Premises, if the Government fails to occupy any portion of the leased premises or vacates the premises in whole or in part prior to expiration of the firm term of the lease, the rental rate shall be reduced as follows: the rate shall be reduced by that portion of the cost per square foot of operating expenses not required to maintain the space. Said reduction shall occur after the Government gives 30 days prior notice to the Lessor, and shall continue in effect until the Government occupies the premises or the lease expires or is terminated.

**3.13 RELOCATION ASSISTANCE ACT**

If an improved site is offered and new construction will result in the displacement of individuals or businesses, the successful Offeror shall be responsible for payment of relocation costs for displaced persons in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 as amended and 49 CFR Part 24.

**3.14 RENTABLE AND NET USABLE SQUARE FEET**

**3.14.1 RENTABLE SPACE**

Rentable Space is determined by the building owner and may vary by city or by building within the same city. The rentable space may include a share of building support/common areas such as elevator lobbies, building corridors, and floor service areas. Floor service areas typically include restrooms, janitor rooms, telecommunications rooms, electrical closets, and mechanical rooms. The rentable space does not include vertical building penetrations and their enclosing walls, such as stairs, elevator shafts, and vertical ducts.

**3.14.2 NET USABLE SPACE**

**EDITING NOTE: NUSF is the same as the Departmental Gross area (DGSF) for the clinic. Refer to VA Design Guide Lease Based Outpatient Clinics for additional information on net, net usable, department gross, and building gross areas.**

Net usable space is that portion of rentable space that is available for a tenant's personnel, furnishings, and equipment. Net usable space is the area for which VA will pay a square foot rate. It is determined as follows:

- If the space is on a single tenancy floor, compute the inside gross area by measuring between the inside finish of the permanent exterior building walls or from the face of the convectors (pipes or other wall-hung fixtures) if the convector occupies at least 50% of the length of exterior walls.
- If the space is on a multiple tenancy floor, measure from the exterior building walls as above and to the room side finish of the fixed corridor and shaft walls and/or the center of tenant-separating partitions.

In all measurements, make no deductions for columns and projections enclosing the structural elements of the building. Deduct the following from the inside gross area, including the enclosing walls, to arrive at the figure for net usable square feet:

- 15.5 % of inside gross area for corridors and circulation.

- Those housekeeping closets not contained in programmed areas. See Paragraph 4.2.3A.
- Public restrooms and lounges. See Paragraph 4.2.3B.
- Building equipment and service areas. See Paragraph 4.2.3C.
- Public corridors and entrance lobbies. See Paragraph 4.2.3D.
- Vertical circulation. See Paragraph 4.2.3E.
- Shafts and risers. See Paragraph 4.2.3F.

Offerors shall indicate on GSA Form 1364A, Proposal to Lease Space, Section II (Space Offered and Rates, the amount of rentable space offered (8a.(2)) and the cost per rentable square footage (8a.(4))).

**3.15 APPURTENANT AREAS**

**EDITING NOTE: Following paragraph generally applies to multiple tenant facilities.**

The right to use appurtenant areas and facilities is included. The Government reserves the right to post Government rules and regulations where the Government leases space.

**3.16 VENDING FACILITIES**

VA is required to comply with the provisions of the Randolph-Sheppard Act pertaining to Vending Facility Programs for the Blind, 34 CFR 395, on properties owned, leased, or occupied by the Government. VA will have notified the appropriate State licensing agency of intent to occupy space under this lease. The State licensing agency shall be afforded the opportunity to determine whether the building includes a satisfactory site for a vending facility and, subject to the approval by VA, shall be offered the opportunity to select the location and type of vending facility to be operated by a blind vendor prior to the completion of the final space layout.

**EDITING NOTE: In paragraph below, include second sentence for multi-tenant building.**

The Lessor will have no right to control or receive income from automatic vending machines located in the vending facility of the leased premises. If space is offered in existing buildings with vending facilities established under pre-existing agreements, VA will ensure that the facility does not compete with other facilities having exclusive rights in the building. Offerors must advise VA if such rights exist.

**3.17 DESIGN AND CONSTRUCTION DOCUMENTS AFTER AWARD**

Design development after award shall be in accordance with the requirements of this Solicitation, and shall be a direct extension of the submitted design concept. The design development shall retain all the functional and basic physical characteristics of that concept. The Contracting Officer shall have the right to reject any aspect of subsequent design that varies from the concept and would adversely affect the Government's use and occupancy of the space or the Government's other interests in the building as set forth or implied in this Solicitation. Nonetheless, the Offeror may propose for the Contracting Officer's acceptance, or the Contracting Officer may propose for the Offeror's acceptance, evolutionary adaptations or changes to the concept, that improve the design. Neither party will unreasonably withhold such acceptance of demonstrated beneficial design adaptations of the concept which would not measurably increase the costs of construction, operation, or occupancy of the space or building and which would not decrease the utility of the space or building to either party. **Changes to planned design layout do not constitute a change for cost.**

**3.17.1 RESPONSIBILITIES OF LESSOR'S DESIGN TEAM**

The Lessor's design team (A/E) shall be responsible for producing a complete set of drawings, design narrative/analysis, calculations, sample boards, and specifications in accordance with professional standard practices and the criteria contained in this SFO. Drawings and related data shall be prepared in accordance with the National CAD Standard (NCS) published by the National Institute of Building Sciences (NIBS) as amended by the VHA *National CAD Standard Application Guide* with regard to conventions in layer names, drawing organization, and plotting. Each A/E discipline shall receive a copy of VHA National CAD Standard Application Guide. The Lessor and Lessor's A/E are responsible for obtaining the NCS (<https://www.wbdg.org/FFC/VA/VACAD/VHACADAppGuide.pdf>).

The Lessor's A/E shall develop and execute a Quality Assurance/Quality Control (QA/QC) program; and shall demonstrate that the project plans and specifications have gone through a rigorous review and coordination effort with each required submittal. The Lessor's A/E shall conduct coordination meetings between A/E technical disciplines before submitting material for each VA review and provide minutes of the meetings to VA.

**3.17.2 INDEPENDENT TECHNICAL REVIEW**

The Lessor shall be responsible for paying for three independent technical and life safety reviews at the Second Design Development submittal, at the 75% Construction Document submission, and independent back check of the Final (100%) Construction Documents. The reviews shall encompass all disciplines. The reviews shall be accomplished by independent professional entities selected by VA that are registered in the appropriate fields of expertise.

NOTE: The Lessor shall allow approximately 15 working days for review and comment by the Government at each review stage.

The independent reviews are limited to checking for general compliance with the SFO and VA requirements. The independent reviews do not take the place of the Lessor's QA/QC program, nor the code review by the Authority Having Jurisdiction (AHJ). The Lessor shall have the responsibility of ensuring that the documents go through the review and permitting



process of the local AHJ. If the independent technical review conflicts with the review by the AHJ, the more stringent requirement shall apply. If there is any question as to which requirement shall apply, the Lessor shall request a determination from the Contracting Officer.

**EDITING NOTE: Select A/E firms and establish fee for the independent technical review in order to complete the following paragraphs.**

**[Insert A/E firm name and fee amounts.]**

For purposes of this Solicitation for Offers (SFO), the firm of Oculus, Inc is the authorized representative of the Department of Veterans Affairs (VA) and shall provide technical review services to VA in connection with this Lease. It is understood between the Lessor and VA that Oculus, Inc shall provide independent technical services on behalf of VA to assist in reviewing drawings.

In connection with the provisions of such independent technical services, the Lessor shall provide in the base rental rate a sum of one hundred nineteen thousand one hundred forty four dollars (\$119,144.00) to be paid to Oculus, Inc. Such fee shall be due and payable, as follows:

Approximately forty (40)% of the fee shall be paid to Oculus, Inc within thirty (30) calendar days following receipt by the Lessor of an invoice certified and approved by VA; following review of the Second Design Development package, and:

Approximately fifty (50)% of the fee shall be paid to Oculus, Inc within thirty (30) calendar days following receipt by the Lessor of a invoice certified and approved by VA; following review of the 75% Construction Document package.

The balance of the fee shall be paid to Oculus, Inc within thirty (30) calendar days following receipt by the Lessor of a final invoice certified and approved by VA, following back check of the final Construction Document package.

The Lessor's responsibilities to pay the fee(s) to Oculus, Inc is independent of any other Lessor financial responsibilities of this Lease and shall not be used to negotiate or offset any credits owed VA by the Lessor. However, in the event Lessor shall fail to pay the fee(s) owed to Oculus, Inc pursuant to the compensation schedule outlined herein, VA, at VA's sole option, shall pay the fee owed on behalf of Lessor to Oculus, Inc out of rent payments and/or any lump-sum payments owed or to-be-owed to Lessor for reimbursement(s) for services/work provided by the Lessor.

The VA shall reimburse Lessor for the Independent Technical Review Fee as part of the lump sum payment VA will make upon acceptance of the space. Offerors shall list the lump sum cost for Technical Review Fee on Attachment 1 of GSA Form 1364A.

**3.18 DESIGN DEVELOPMENT**

**EDITING NOTE: The following paragraphs allow a total of 90 days for the DD Phase, including reviews. Revise if necessary to suit project scope and schedule.**

The Design Development phase involves the production of drawings, specifications, calculations, narratives, reports, and other materials as listed in Paragraph "SUBMITTAL REQUIREMENTS FOR DD AND CD REVIEWS." Two Design Development submissions shall be required for review by the government. The submittals shall fully describe the architectural and engineering design approach used, and the systems, materials, and layout for the site and building. The submittals shall be reviewed by VA and the independent technical reviewers to determine that the design proposed by the Lessor conforms to the space / functional and technical requirements of this SFO.

Utilizing the conceptual layout diagram provided by VA at time of award and working in conjunction with the Contracting Officer or designee, the Lessor shall produce the First Design Development Submittal within 45 calendar days of award.

After VA review and comment on the First Design Development Submittal, the Lessor shall complete and submit the Second Design Development Submittal within 30 calendar days:

**3.19 CONSTRUCTION DOCUMENTS**

**EDITING NOTE: The following paragraphs allow a total of 90 days for the CD Phase, including reviews. Revise if necessary to suit project scope and schedule.**

The Construction Document phase involves the production of complete drawings, specifications, and other documents necessary for the bidding and construction of the project. Construction documents shall be prepared from the approved design development documents. It is the Lessor's responsibility to provide a quality set of documents. Documents shall be complete and fully coordinated. Prior to reproduction for issue for construction bids, make any changes to the documents identified as necessary by the Contracting Officer during reviews. 100% Construction Documents shall contain the seal (or stamp) of a professional engineer or architect, registered in the discipline represented by the drawing. Final calculations shall contain the seal (or stamp) of a registered professional engineer. Persons sealing the construction documents or calculations shall be the entities identified by the Lessor under Paragraph Design Team Qualifications above. Two construction document period submissions shall be required: the first at 75% complete and the second at 100% complete.

Within 45 calendar days of receipt of written VA approval of the Second Design Development Submittal, the Lessor shall produce a complete set of 75% construction documents and specifications for review.

Within 30 calendar days of receiving written notification of VA's 75% construction document review comments, the Lessor shall submit a complete set of 100% working drawings and specifications for review. The Lessor shall incorporate all VA comments of the 75% contract document submittal.

**NOTE: The Lessor shall allow approximately 15 working days from date of receipt for review and comment by the Government at each review stage.**

**3.20 SUBMITTAL REQUIREMENTS FOR DD AND CD REVIEWS**

**3.20.1 GENERAL REQUIREMENTS**

Provide a design narrative/analysis for each technical discipline (e.g., architectural, mechanical, fire protection, etc.) which describes the intent of each discipline with each design development submission.

Provide computations and sizing calculations for electrical, mechanical (HVAC, plumbing, and steam), sanitary, structural, and fire protection designs. For computerized calculations, submit complete and clear documentation of computer programs, interpretation of input/output, and description of program procedures.

Provide individually packaged drawings for each submission to each unit specified in Paragraph "Distribution of A/E Materials."

At each submission, the A/E shall date and appropriately label all materials. In each submission, the A/E shall incorporate the corrections, adjustments, and changes made by VA at the previous review.

**A. Format**

*(1) Drawings*

Hard copies shall be black line prints on bond paper, full size (30" x 42") and half size (15" x 21"). Each set shall contain all sheets for all disciplines (partial sets are not allowed). Electronic submissions may be plots or scans in Adobe® PDF format; except floor (space layout) plans shall be provided in both PDF format and as AutoCAD® release 2015 drawing files to facilitate verification of net and rentable areas. Quantities shall be as indicated below.

*(2) Specifications*

Hard copies shall be printed double-sided on 8½" x 11" bond paper. Electronic submissions may be in Microsoft® Word® 2003 or Adobe® PDF format. Electronic files containing two or more specification sections shall be indexed or bookmarked.

*(3) Narratives*

Hard copies shall be printed on 8½" x 11" bond paper. Electronic submissions may be in Microsoft® Word® 2003 or Adobe® PDF format. Bookmark or index all electronic files.

*(4) Calculations*

Hard copies shall be printed on 8½" x 11" bond paper. Electronic submissions may be Adobe® PDF format. Bookmark or index all electronic files.

**B. Distribution of A/E Materials**

Electronic materials shall be submitted on CD-ROM or DVD. Each set of paper (hard) copies shall be bound or may be assembled in three-ring binders. Label each disk and paper set to identify the project, location, contract number, and submittal type and date. Required number of copies is designated in the following table.

**EDITING NOTE: Edit numbers of copies to suit project size and scope.**

<b>Submittal</b>	<b>Medical Center</b>	<b>Resident Engineer</b>	<b>Ind Tech Reviewer</b>
<b>First Design Development</b>			
Narratives	1 each hard and electronic	1 each hard and electronic	6 hard copies
Drawings	1 each hard and electronic	1 each hard and electronic	6 hard copies
Specifications	1 each hard and electronic	1 each hard and electronic	6 hard copies
Calculations	1 each hard and electronic	1 each hard and electronic	1 hard copy each discipline
<b>Second Design Development</b>			
Narratives	1 each hard and electronic	1 each hard and electronic	6 hard copies
Drawings	1 each hard and electronic	1 each hard and electronic	6 hard copies
Specifications	1 each hard and electronic	1 each hard and electronic	6 hard copies
Calculations	1 each hard and electronic	1 each hard and electronic	1 hard copy each discipline
<b>75% Construction Documents</b>			
Drawings	1 each hard and electronic	1 each hard and electronic	6 hard copies
Specifications	1 each hard and electronic	1 each hard and electronic	6 hard copies
Calculations	1 each hard and electronic	1 each hard and electronic	1 hard copy each discipline
<b>100% Construction Documents</b>			
Drawings	1 each hard and electronic	1 each hard and electronic	6 hard copies
Specifications	1 each hard and electronic	1 each hard and electronic	6 hard copies
Calculations	1 each hard and electronic	1 each hard and electronic	1 hard copy each discipline

**3.20.2 FIRST DESIGN DEVELOPMENT SUBMITTAL**

**A. Site**

Submit preliminary drawings showing the development concept. Submit copies of topographic, utility, and landscape surveys.

Include layout plan(s) showing location of: building and structures, roads, fire access, parking, mechanical, electrical, and telecommunications, preliminary stormwater treatment areas, equipment on grade, service area(s), entrances and exits, and walks; Grading plan, showing existing and proposed contours; and Planting plan, showing plant groupings.

Submit preliminary narrative for site design concept with analysis of site, circulation study, phasing analysis, and parking analysis.

**B. Structural**

Submit preliminary structural plans and sections. Show bay sizes, locations and sizes of columns, bearing walls, and foundations. Show locations and depths of floor and roof framing members. Show locations and sizes of lateral force resisting elements. Indicate locations of major mechanical, electrical, and other special equipment items.

Submit preliminary design narrative, including basis for selection of proposed structural system, and preliminary supporting calculations.

**C. Architectural**

Submit final layout drawings (floor plans) for all floors at 1/8-inch scale. Drawings shall be of sufficient precision and/or adequately dimensioned so that the Government may accurately compute rentable and useable areas to verify compliance with solicitation requirements.

Submit preliminary equipment plans (at 1/4-inch scale) and preliminary equipment schedules that reflect the requirements in this Basic Solicitation as well as Schedule B "Special Equipment Requirements." Identify all equipment for each clinical or laboratory room listed in Schedule B. Equipment plans are not required for offices, consultation rooms, classrooms, conference rooms, and waiting rooms.

Submit building elevations, showing all significant materials, including their colors, roof top mechanical equipment, and any architectural screens. Elevations shall show massing, proposed fenestration, and the building's relationship to adjacent structures and the finish grade.

**D. Interior Design**

No requirements at this submittal.

**E. Sustainable Design & Energy Efficiency**

Submit preliminary Green Globes®-NC Two Globes Certification checklist. Submit preliminary narrative addressing how the design will meet Federal Mandates for sustainability and energy efficiency, including site base conditions analysis, preliminary base case energy and water analysis, and integrated strategies.

**F. Fire Protection/Life Safety**

Submit preliminary design narrative. The fire protection narrative shall discuss: fire and smoke separations, fire sprinkler/standpipe system, size of fire pumps, water supply available/max. demand, water flow testing results, fire alarm systems, kitchen extinguishing systems, size of air handling units, exit paths from each zone, distances to stairs, occupancy of each area, exit calculations for each floor, and smoke control features.

Submit preliminary fire protection plans plans/drawings (minimum 1/8-inch scale) illustrating: sprinkler zones, fire alarm zones, smoke zones, building water supply, interior sprinkler supply risers, standpipes, fire extinguisher cabinets, and fireproofing of structural members.

**G. Mechanical**

Submit preliminary design narrative addressing description of HVAC systems, equipment for each functional space, and life-cycle cost analysis. Submit preliminary engineering calculations. Provide specific design recommendations and full back-up data. Include the heating and cooling capacities of each functional area and the block cooling and heating loads for the building.

Submit preliminary drawings (minimum 1/8-inch scale) indicating: tentative location/sizes for mechanical equipment room(s), principal vertical shafts, and block layout of equipment. Indicate preliminary sizes and locations of louvers required for outside, exhaust, and relief air.

**H. Plumbing**

Submit preliminary design narrative addressing plumbing systems including supply, waste, and medical or laboratory gas systems.

Submit preliminary drawings (minimum 1/8-inch scale) including: room names and numbers, plumbing fixtures w/VA numbering system, equipment, medical gas outlets, laboratory gas outlets, and routing for plumbing piping.

**I. Electrical**

Submit preliminary design narrative for electrical systems and preliminary load calculations for normal and emergency power. Include basic assumptions, and projected load of new construction.

Contact the electrical utility that will supply electrical power. Submit a written summary of any conversations with the electrical utility. Submit a full set of preliminary electrical site, lighting, and power floor plans, showing equipment, lighting, and receptacle locations. Submit proposed one-line and riser diagrams of the normal electrical power distribution system and the emergency power system. Final equipment ratings may vary, but locate all equipment and identify and size dimensionally for adequate capacity. Provide preliminary fault current, generator sizing, load, feeder and equipment sizing, voltage drop, lightning protection risk analysis, and lighting and energy calculations.

**J. Telecommunications and Special Systems**

Submit preliminary design narrative addressing Telecommunications and Special Systems.

Submit preliminary Telecommunications and Special Systems drawings including site plan and floor plans (minimum 1/8-inch scale). Show locations of and sizes of telecommunications and

special systems rooms. Identify low-voltage outlet connections and major equipment items. Include basic cable tray routing, all conduit based pathways where the conduit nominal OD is 2" or greater and all fire stop system placement. Provide legend of symbols.

Submit cutsheets for all Division 27 and Division 28 structured cabling system components and all Special Systems components to be installed.

SECOND DESIGN DEVELOPMENT SUBMITTAL

**K. Site**

Submit design narrative and calculations for site development. Include a Geotechnical Report that addresses at a minimum, soil bearing pressures, slab design, existing soil conditions, percolation rates, slope stability and recommended mitigation, pavement design, etc.

Include a Hydrology and Hydraulic analysis and report in support of the proposed design which complies with local, state, and federal flood plain management standards and methodologies. It is not acceptable to connect storm drain systems to the sanitary system.

Submit completed design development drawings for all site work and utility systems. Include layout plan(s) showing location of: building and structures, roads, fire access, parking, accessible spaces, van spaces, emergency vehicle parking, loading dock bay area, mechanical and electrical equipment on grade, off-site roads, off-site utilities, service area(s), entrances and exits, walks, hardscape areas, inlets, vertical and horizontal road alignment, and paving joint patterns.

Submit grading plan showing: existing contours, proposed contours, spot elevations at structure corners, entrances, equipment pads, etc., first floor elevations, rim and invert elevations on storm drainage fixtures, and erosion and sediment control.

Include conceptual drawings that reflect the alignment of the water distribution system, including location of fire hydrants and points of connection to the public water system.

Include conceptual drawings that reflect the alignment of the sanitary sewer system, including manhole locations and points of connection to the downstream sewer system.

Include conceptual storm drain drawings based on the Hydrology and Hydraulic report. The drawings should reflect the alignment of the storm sewer system, including location of detention/retention basins, junction structures, channels, pipe structures and catch basins, connections to the existing storm system (if one exists) or flow arrows indicating the direction of surface flow.

Submit landscape drawings including planting plan showing: list of plant material and limits of irrigation.

Submit signage plan and schedule.

Submit site and landscape details.

Submit completed design narrative and calculations.

Submit draft specifications for earthwork, utility systems, and site improvements.

**L. Structural**

Submit completed design development drawings including structural plans, sections, and details. Show bay sizes, locations and sizes of columns, bearing walls, and foundations. Show locations and depths of floor and roof framing members. Indicate floor and roof slab thickness. Coordinate floor or roof depressions and penetrations with architectural, mechanical, plumbing, and electrical work. Indicate major mechanical, electrical, and other special equipment items; and show chases or shafts. Show framing and support required at those locations. Show locations and sizes of lateral force resisting elements.

Submit final design narrative including basis for selection of proposed structural system. Submit calculations for gravity and lateral design.

Submit draft specifications for structural materials.

**M. Architectural**

Submit completed design development floor plans (minimum 1/8-inch scale) for each floor showing all rooms, room names, room numbers, door locations and swings, smoke and fire rated partitions, and fire extinguisher cabinets. Label departments or services. Show all rooms and chases for mechanical, electrical, and low-voltage (communications) equipment. Show wall thickness and chase walls. Show plumbing fixtures and equipment occupying floor space. Indicate handrails and corner guards. Show column grid with columns indicated and expansion and seismic joints.

Submit completed equipment plans, elevations (minimum 1/4-inch scale), and schedules. List any changes or deviations from Schedule B for review and approval by the Contracting Officer or designee.

Submit completed design development roof plan, exterior elevations, building and wall sections, and key details. Submit room finish, door, and window schedules. Submit general notes, symbol legends, and abbreviations.

Submit final design narrative.

Submit draft specification sections.

**N. Interior Design**

Submit interior design narrative. Discuss information gathered during interior design programming with the VAMC project coordinator and interior designer including, but not limited to the following: interior and exterior design and materials, light, safety, patient profile, customer's "vision" or desired image, public vs. private spaces, signage, regional influences, etc.

Present the preliminary design solution for the primary areas of the project. Use broad categories of materials, finishes, color palettes, patterns, textures, and scales. Include primary and secondary corridors, lobbies, waiting rooms, offices, exam and treatment rooms, and toilet



rooms. Discuss the relationship among departments and functions, and between public and private spaces.

**O. Sustainable Design & Energy Efficiency**

Submit Green Globes®-NC Two Globes Certification checklist. Submit narrative addressing how the design will meet Federal Mandates for sustainability and energy efficiency. Submit refined ASHRAE 90.1-2004 base-case energy model and as-designed energy model, including all assumptions used, targeting compliance with the 30% energy reduction goal, or exceeding the goal. Submit refined water use analysis and daylighting calculations. Submit preliminary commissioning specifications.

**P. Fire Protection/Life Safety**

Submit completed fire protection narrative. Indicate NFPA 220 and UBC fire resistive rating of the building, NFPA 101 occupancy type, and fire protection code analysis to assess compliance with NFPA 101. Provide information to meet JCAHO requirements, e.g., location of all fire rated barriers, smoke barriers, exit signs, fire extinguishers, manual pull stations, smoke detectors, and sprinkler flow switches.

Submit completed design development fire protection plans/drawings illustrating: sprinkler zones, fire alarm zones, smoke zones, building water supply, sprinkler/standpipe riser supply piping, termination of sprinkler main and inspector test drains, sprinkler alarm valves, waterflow and tamper switches, sprinkler system fire department connections, sprinkler design hazards per NFPA 13, exit signs and emergency lighting, fire sprinklers, fire hydrants, fire pumps, post indicator valves, sectional valves, fire extinguisher cabinets, electromagnetic door hold open devices, wall sections indicating fire resistive ratings, and evacuation plan signage.

Submit draft specifications for fire alarm and suppression systems.

**Q. Mechanical**

Submit completed design narrative and calculations for HVAC systems. Include room-by-room, peak zone-by-zone, and building block heating and cooling loads. Discuss selection of HVAC equipment and provide catalog cuts of equipment. Provide room-by-room heating and cooling loads, zone-by-zone heating and cooling loads; and building block heating and cooling loads. Include Psychrometric chart for air handling unit, coil entering and leaving conditions, fan motor heat gains, consumption of humidification loads, sound/acoustic analysis. Provide room-by-room air balance charts. Show supply, return, exhaust, make-up, and transfer quantities with intended pressure relationships, i.e., positive, negative, or zero with respect to adjoining spaces.

Submit completed design development drawings indicating: main supply, return and exhaust ductwork, volume dampers, fire and smoke partitions, fire and smoke dampers, smoke detectors, automatic control dampers, air quantities for each room, air inlets/outlets, rises and drops in ductwork, and interconnection of HVAC equipment with fire protection equipment (see fire protection). Provide plan and section of mechanical equipment rooms and building corridors (show routing of main ductwork, plumbing, fire protection, major conduit or cable tray runs). Provide schematic flow and riser diagrams, schematic control diagrams, and equipment schedules. Indicate required seismic bracing. Provide legends, symbols, and abbreviations.

Submit draft specifications for mechanical systems and equipment.

**R. Plumbing**

Submit completed design narrative addressing plumbing systems including supply, waste, and medical or laboratory gas systems. Submit calculations for piping systems and equipment.

Submit completed design development drawing. In addition to the requirements of the first design development submittal, show the following: size of pipe, equipment schedule, fire and smoke partitions, riser diagrams, legend, notes, and details; location and size of sprinkler riser, standpipes, and fire pumps (see fire protection); and location of emergency eyewash and shower equipment.

Submit draft specifications for plumbing systems and equipment.

**S. Electrical**

Show all new services to building, utility transformers, location, exterior lighting, and the utility service point and meter location on the electrical site plan. Submit a written summary of any conversations with the electrical utility.

Provide legend of symbols and abbreviations. Submit a full set of electrical lighting, power, and lightning protection plans for building and site. Submit one-line diagrams of the normal electrical power distribution system and the emergency power system.

Provide prefinal fault current, generator sizing, load, feeder, and equipment sizing, voltage drop, lightning protection risk analysis, and lighting and energy calculations.

Submit draft specifications for electrical equipment.

**T. Telecommunications and Special Systems**

Submit completed design narrative.

Submit Telecommunications and Special Systems site and building drawings. Identify low-voltage outlet connections and major equipment items. Include basic cable tray routing, all conduit pathways where the nominal OD of the conduit is 2" or greater, and floor penetration location for routing of low-voltage cabling.

Submit preliminary Telecommunications and Special Systems drawings including site plan and floor plans (minimum 1/8-inch scale). Show locations of and sizes of telecommunications and special systems rooms. Identify low-voltage outlet connections and major equipment items. Include basic cable tray routing, all conduit based pathways where the conduit nominal OD is 2" or greater and all fire stop system placement. Provide legend of symbols.

Submit ¼-inch scale enlarged Telecommunications Room / Special Systems Room plans. Identify equipment rack location, overhead ladder rack, and wall field equipment with proper clearances. Submit ½-inch scale enlarged plans of the rack details including termination areas of copper and fiber cabling and equipment layout.

Submit draft specifications for Telecommunications and Special Systems (Division 27) and Security (Division 28).

Submit cutsheets for all Division 27 and Division 28 structured cabling system components and all Special Systems components to be installed.

**3.20.3 75% CONSTRUCTION DOCUMENTS**

**A. Site**

The Site drawings shall indicate all site features required by the lease documents, e.g., topography (1 foot contours), building location by legal description, site setbacks, grading, parking, roadways, access ways, pedestrian routes, landscaping, irrigation system, sidewalks, outdoor staff break area, conformance with local design standards, etc. The site drawing shall be at a minimum scale of 1" = 40'. Provide specifications for site improvements.

The site drawings shall reference the Geotechnical Report for drainage design, pavement design recommendations, and slope stability, etc.

Include a Hydrology and Hydraulic analysis and report in support of the proposed design which complies with local, state, and federal flood plain management standards and methodologies. It is not acceptable to connect storm drain systems to the sanitary system.

The Site drawings shall include details for connecting to the public water distribution system. Include points of connection, zone boundaries, fire hydrants (spaced per local codes), domestic and irrigation meter size and location, and all other water distribution components as required by the local water utility.

The Site drawings shall include details for connecting to the public wastewater system. Include the downstream point of connection, manholes, and cleanouts, etc., per the standards and specifications of the local wastewater jurisdiction. The proposed wastewater system cannot be designed to be integrated with the storm drain system.

Include detailed drainage plans based on the Hydrology and Hydraulics Report that identify location and depth of basins, storm sewer, catch basins, channels, connection points, pipe structures and all other drainage related items, as proposed in the report or required by the local jurisdiction.

**B. Structural**

Submit 75% complete structural drawings including foundation plans, floor and roof framing plans, sections, elevations, general notes, schedules, and details. Coordinate floor or roof depressions and penetrations with architectural, mechanical, plumbing, and electrical work. Indicate major mechanical, electrical, and other special equipment items, and show chases or shafts. Show framing and support required at those locations.

Submit calculations for gravity and lateral (wind/seismic) load requirements. Submit structural specifications.

**C. Architectural**

Submit 75% complete architectural drawings including fully dimensioned floor plans showing all revisions required by comments from the design development phase. Submit interior

details, elevations, and sections. Submit complete and coordinated finish, door, hardware, and window schedules. Submit roof plans, building sections, wall sections, and exterior elevations that show finish floor elevations and indicate all building systems and materials. Submit completed, coordinated reflected ceiling plans for entire building, indicating all ceiling mounted equipment, lighting fixtures, air diffusers, registers, tracks, etc. Submit 1/4-inch scale equipment plans, elevations, schedules, and details. Submit general notes, symbol legends, abbreviations, and all necessary and coordinated interior and exterior details. Submit fully edited specifications.

**D. Interior Design**

*(1) Fabrication of Sample Boards*

Provide 2 complete sets of sample boards. Distribution will be Contracting Officer-1 set, VAMC-1 set. Sample boards are not returnable. Designer should fabricate an extra copy of each submission for their records.

Identify each sample board with project and location information.

*(2) Product Samples*

Organize the finish and material samples on the boards to clearly convey the design intent. Apply an actual sample of all interior and exterior materials, finishes and paints specified on the project. Securely adhere all samples with a strong adhesive and/or double sided foam tape. Place exterior materials on a separate board. Assign a color and material code to all samples.

*(3) Sample Boards*

Use mat board, foam core or any other suitable lightweight material. Board size should not exceed 30" x 40". Use a white board. Backer boards of other colors may be used for bordering. Do not use frames.

*(4) Signage and Wayfinding*

Submit drawing(s), specifications, and narrative to illustrate the wayfinding concept and signage systems proposed for the project. Include all graphics and signage that are to be provided as part of the solicitation.

**E. Sustainable Design and Energy Efficiency**

Submit final documentation demonstrating Green Globes®-NC Two Globes Certification. Where proposed Credits will not achieve all federally-mandated strategies for sustainability and energy efficiency, submit documentation showing compliance with federally-mandated strategies. Submit final ASHRAE 90.1-2004 base-case energy model and as-designed energy model based on the Construction Documents, including all assumptions used, demonstrating compliance with the 30% energy reduction goal. Submit final models for all other systems. Submit final commissioning specifications.

**F. Fire Protection/Life Safety**

**EDITING NOTE: The following paragraph contains items applicable to structures with fire pumps, multi-story structures, commercial**

**kitchens, etc. Review and edit carefully to reflect project features and requirements.**

Submit 75% complete fire protection drawings. In addition to the drawing requirements of the Second Design Development submission, include the following:

Door and window schedule indicating fire rating and whether fire rated glazing will be provided;

Height and configuration of storage racks and shelving in relation to fire sprinkler heads;

Reference note to HVAC drawings that indicates interconnection of HVAC system components (dampers, fans) with duct smoke detectors and/or fire alarm system;

When fire pump is required, submit details of the fire pump system, including elevation and isometric detail of fire pump, and interconnection of the fire pump system to the fire alarm system;

Show zoning of each fire alarm initiating device, single line riser diagram for the fire alarm system, and detail of annunciator panel;

For multi-story buildings, submit details of the stairwell sign, indicating stairwell number, floor number, and upper and lower floor terminus of stairwell, and interconnection of elevator controls with fire alarm system;

Interconnection of kitchen fire extinguishing system to the fire alarm system;

Provide final calculations.

Submit fire protection specifications.

**G. Mechanical**

Provide complete and final engineering calculations of all systems. In addition to specifications, provide complete selection data, including catalog cuts and calculations, for all HVAC equipment and drawings showing all equipment schedules. Complete the coordination requirements with fire protection, electrical, plumbing, architectural (louvers, ceiling access panels, reflected ceiling plans, etc.), and structural work (operating weights of ceiling and floor mounted equipment, concrete and steel supports, roof and floor openings, etc.). Submit 75% complete HVAC floor plans for all areas, showing all ductwork and piping at 1/8-inch scale. Submit 75% complete HVAC floor plans for all mechanical equipment rooms with at least two cross-sections taken at right angles to each other at 1/4-inch scale. Show all equipment located on roof and/or grade.

**H. Plumbing**

Submit 75% complete and coordinated drawings to include riser diagrams, legend, notes and details. Submit specifications and final calculations.

**I. Electrical**

Complete the site and building electrical lighting, power, and lightning protection plans. Provide normal and emergency one-line riser diagrams including all conduit and cable quantities and sizes, complete ground system, and electrical equipment amperage/voltage/phase/poles/AIC ratings. Show transformers, switchboards, panelboards, and feeders in relative positions. Tabulate all panelboard schedules. Provide specifications and final calculations. Provide written approval by the utility company of the design of the electrical incoming service.

**J. Telecommunications and Special Systems**

Show all new services to building from service providers and/or inter-connections. Complete a site plan and a one-line riser diagram including all conduit, manhole/s, handhole/s, backbone cable. Provide voice, data, security, bonding/grounding, and special systems risers. Identify all devices and locations. Complete the building low-voltage floor and reflective ceiling plans; security work area outlets shall be located on a separate set of floor and RC plans. Floor plans shall identify those devices and pathways located lower than 7'-6"; reflective ceiling plans shall be used to located pathways and devices to be installed at 7'-6" and higher. Provide complete specifications for all low-voltage systems (Division 27 and Division 28) and final device locations.

Submit final specifications for Telecommunications and Special Systems (Division 27) and Security (Division 28).

Submit final cutsheets for all Division 27 and Division 28 structured cabling system components and all Special Systems components to be installed.

**3.20.4 100% CONSTRUCTION DOCUMENTS**

All disciplines: complete and coordinate all drawings, specifications, and schedules for 100% construction document submittal. Incorporate all VA and technical review comments. Provide seal (stamp) and signature of the responsible charged A/E on all construction documents and final calculations. Submit design team responses to review comments and QA/QC documentation with 100% document package for back check.

The documents submitted to the Authorities Having Jurisdiction for plan review and permitting shall be the 100% construction documents with VA review comments incorporated.

**3.20.5 APPROVED PLANS AND PERMITS**

Prior to the start of construction, submit to VA copies of all permits and two complete sets of construction documents as approved by the Authorities Having Jurisdiction.

**3.21 PROJECT SCHEDULE**

**3.21.1 NAS SCHEDULE**

**EDITING NOTE: Contact CPM Scheduling in Office of Construction and Facilities**

**Management, Service Delivery Office for assistance with NAS schedules.**

The Lessor shall develop a Network Analysis System (NAS) plan and schedule demonstrating fulfillment of the contract requirements, shall keep the network up-to-date in accordance with the requirements of this paragraph, and shall utilize the plan for scheduling, coordinating, and monitoring work under this lease contract (including all activities of subcontractors, equipment vendors, and suppliers). Conventional scheduling techniques shall be utilized to satisfy time applications. All schedule data and reports required under this paragraph shall be based upon regular total float schedules. The Lessor shall designate an authorized representative in the firm who will be responsible for the preparation of the network diagram and will review and report progress of the project with and to the Contracting Officer or designee. The Lessor's designated representative shall have direct project control and complete authority to act on behalf of the Lessor in fulfilling the requirements of this paragraph, and such authority shall not be interrupted throughout the duration of the project.

**3.21.2 SCHEDULE UPDATES**

The Lessor shall provide to VA **monthly** computer-generated schedule report updates. The Lessor is responsible for the timely submission and correctness of the monthly reports provided to the Contracting Officer or designee. VA shall report errors in the reports to the Lessor's representative within seven (7) calendar days from receipt of reports. The Lessor shall reprocess the reports when requested by the Contracting Officer or designee, to correct errors that affect the schedule for the project.

**3.21.3 DATES**

The successful Lessor shall provide a combined project schedule for design and construction. Within 45 calendar days after award, the Lessor shall submit to the Contracting Officer or designee a project schedule giving the dates on which the various phases of design and construction will be completed to coincide with the Government's required occupancy date (refer to Paragraph 1.6 of this Solicitation). The schedule shall clearly indicate the completion of significant activities/events, including but not limited to:

- Submittal of completed First Design Development Package
- Submittal of completed Second Design Development Package
- Submittal of 75% Construction Documents
- Submittal of 100% Construction Documents
- Issuance of a Building Permit
- Submittal to VA of copies of Permits and Approved Construction Documents
- Start of construction
- Completion of principal categories of work
- Testing and balancing
- Building Systems Certification

- Final inspection
- Final completion of construction
- Occupancy permit

**3.21.4 ACTIVITIES**

**EDITING NOTE: Adjust the number of activities/events to reflect the scope and complexity of the project.**

The schedule shall contain approximately 1,000 activities/events and shall break up the work into activities/events of duration no longer than 20 work days each, except as to non-construction activities/events (i.e., submittal of shop drawings, submittal review, fabrication, procurement of materials and equipment, delivery of materials and equipment, concrete and asphalt curing, testing and balancing, etc.) and any other activities/events for which the Contracting Officer or designee may approve the showing of a longer duration. The duration for VA approval of any required submittal, shop drawing, or other submittals shall not be less than 15 calendar days.

The schedule shall describe work activities/events clearly, so the work is readily identifiable for assessment of completion. Activities/events labeled "start," "continue," or "completion," are not specific and will not be allowed. Lead and lag time activities will not be acceptable.

**3.21.5 GOVERNMENT REVIEW**

To the extent that the network diagram or any revised network diagram shows anything not jointly agreed upon, it shall not be deemed to have been approved by the Contracting Officer or designee. Failure to include any element of work required for the performance of this contract shall not excuse the Lessor from completing all work required within any applicable completion date of each phase regardless of the Contracting Officer or designee approval of the network diagram.

**3.22 PROGRESS REPORTS**

After receipt of VA approved Second Design Development Submittal, the successful Lessor shall submit to the Contracting Officer or designee written progress reports every 30-calendar days, based upon the monthly updated NAS. The report shall include information as to percentage of the work completed by phase and trade, a statement as to expected completion and occupancy dates, changes introduced into the work, and general remarks on such items as material shortages, strikes, weather, or the like.

**3.22.1 REMEDIAL ACTION**

Whenever it becomes apparent from the current monthly updated schedule that phasing or contract completion dates will not be met, the Lessor shall execute some or all of the following remedial actions:



- Increase construction manpower in such quantities and crafts as necessary to eliminate the backlog of work.
- Increase the number of working hours per shift, shifts per working day, working days per week, the amount of construction equipment, or any combination of the foregoing to eliminate the backlog of work.
- Reschedule the work in conformance with the solicitation requirements.

The Lessor shall notify the Contracting Officer or designee as to what actions are being taken to mitigate the proposed schedule changes. The project schedule revisions shall be incorporated by the Lessor into the network diagram before the next update, at no additional cost to the Government.

**3.22.2 REVISIONS TO SCHEDULE**

Within 10 calendar days after any project progress schedule update, the Lessor shall submit a revised project schedule for any of the following reasons:

Delay in completion of any activity/event or group of activities/events that indicates an extension of the project completion by 20 working days or 10% of the remaining project duration, whichever is less. Such delays, which may be involved with contract changes, strikes, unusual weather, and other delays, will not relieve the Lessor from the requirements specified unless the conditions are shown on the schedule as the direct cause for delaying the project beyond the acceptable limits.

Delays in submittals, or deliveries, or work stoppage are encountered which make rescheduling of the work necessary.

The schedule does not represent the actual execution and progress of the project.

Project schedule revisions made under this paragraph which affect the previously approved computer-produced schedules for Government furnished equipment, contract phase(s) and sub-phase(s) or any other previously contracted item, must be furnished in writing to the Contracting Officer or designee for approval.

**3.22.3 APPROVAL OF SCHEDULE**

The Contracting Officer or designee approval for the revised network diagram and all relevant data is contingent upon compliance with all other paragraphs of this section and any other previous agreements by the Contracting Officer or designee.

**3.22.4 COSTS OF REVISIONS**

The cost of revisions to the network diagram resulting from contract changes will be included in the proposal for changes in work as specified in Paragraph 0, Contract Changes, of this Solicitation, and will be based on the complexity of the revision or contract change, man hours expended in analyzing the change, and the total cost of the change.

The cost of revisions to the network diagram not resulting from contract changes is the responsibility of the Lessor.

**3.23 CONSTRUCTION OBSERVATION**

Observations of the work during construction will be made periodically by the Contracting Officer and/or the designated Contracting Officer's Technical Representative (COTR) to review compliance with the Solicitation requirements and the final working drawings.

Periodic reviews, tests, and other field observation by the Government are not to be interpreted as superintendence nor as resulting in any approval of the Lessor's apparent progress toward meeting the Government's objectives; but are intended to discover any information that the Contracting Officer may be able to call the Lessor's attention to prevent costly misdirection of effort. The Lessor will remain completely responsible for designing, constructing, operating, and maintaining the building in full accordance with the requirements of this Solicitation.

The Lessor shall provide VA with a copy of all inspection reports for inspections conducted by local, regional, and state code authorities from the start of construction through issuance of the certificate of occupancy.

**3.23.1 RESIDENT ENGINEER'S OFFICE SPACE**

**EDITING NOTE: Include the following paragraph only if office space is not available for the RE at a nearby VA facility. Use 720 square foot office for projects up to 120,000 NUSF. Use 1440 square foot office for larger projects.**

**Match quantities of furnishings and equipment to office size required.**

The Lessor shall provide a temporary field office, furniture, and two-inch deep gravel-surfaced parking area for use of the Resident Engineer. Office and furniture shall be new or in "like new" condition.

**A. Temporary Field Office**

The field office shall provide not less than 1,440 gross square feet of floor area in one unit. Installation of the office shall meet all local codes.

Provide office with two 3-foot wide exterior doors, including hardware. The public entry door shall be ADA compliant including a ramp if necessary. Other doors shall have an OSHA approved platform and stairs leading to grade. A stainless steel lock guard shall be provided over deadbolts on exterior at each door.

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 ground with a painted 3/4-inch exterior grade plywood skirt.

Exterior finishes shall be manufacturer's standards.

Provide floor, wall, and roof with not less than R5 insulation.

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.

Interior shall be subdivided with full height partitions to provide two offices, one sample room, one conference room, two separate toilets, and one bar sink. Provide each space with three-foot wide door with master keyed locks. Section off an area with a low partition and counter for the administrative assistant's desk.

Provide 2-1/2 ft wide x 3 ft high operable windows; two in each room (none required in sample room), except provide only one 2-foot high window with frosted glass in toilet room(s). Provide steel mesh over all glass in doors and windows. The windows shall have mini-blinds.

Provide sufficient fluorescent lighting in each room to deliver 30-foot candles of light at desktop height without the aid of daylight. Provide one light switch in each room. Provide one cord-connected, portable 24-inch fluorescent task light at each secretarial workstation and office desk.

Provide one quadraplex receptacle in each wall of each room. If a wall is 10 feet long or more, provide two quadraplex receptacles for each 10 feet, or portion thereof, of wall. Provide two quadraplex receptacles in low partition at administrative assistant's desk.

**B. Utilities and Services**

The Lessor shall provide the following:

Electricity, hot and cold water, and necessary utility services.

All necessary piping, power circuits, electrical fixtures, lighting, and other items necessary to provide a habitable structure for the purpose intended.

Thermostatically controlled, centralized heating and air conditioning system designed to maintain the temperature between 70 and 80 degrees F with 50% relative humidity. The relative humidity shall be uncontrolled.

One water closet, lavatory, mirror, toilet paper dispenser, paper towel dispenser, soap dispenser, towel bar, and two-prong coat hooks for each toilet room.

Voice and Internet connections: Provide three (3) voice lines and one (1) Internet cable service.

Lessor shall, for the duration of the Resident Engineer's occupancy, provide the following:

- Shall be responsible for cost of utilities.
- Secure, safe, and sanitary conditions in and around the field office and parking area.
- Maintenance of gravel surfaced area, including the area for parking, in an acceptable condition for vehicle and foot traffic at all times.

- Maintenance of utility services.

**EDITING NOTE: Delete following subparagraph unless specifically instructed by the Project Manager to leave it in.**

- Weekly janitorial services and supplies (toilet paper, soap, etc.).
- Potable water, fuel, and electric power for normal office uses, including lights, heating, and air conditioning.
- Lessor shall be responsible for all maintenance for field office and equipment including replacement of burned out light bulbs or tubes and changing of A/C filters.

**C. Furnishings and Equipment**

The Lessor shall provide the following new or "like" new reconditioned items:

**EDITING NOTE: Use first list of furniture for 720 square foot office. Use second list for 1440 square foot office.**

**QUANTITY REQUIRED**

- 4 conference tables 3x6ft, folding
- 4 work tables 3x5ft, folding
- 4 swivel chairs with arms
- 4 five drawer filing cabinets
- 3 30in drawing racks, mobile Plan Hold
- 1 7 level shelf steel wire for sample room
- 2 metal book cases
- 1 electric water cooler
- 1 metal storage cabinet 36x24x72 w/shelves

**D. Disposition of Field Office at Completion of Construction**

At the completion of all work, including the punch list, the Resident Engineer's field office and facilities, except 5 drawer file cabinets shall become the property of the Lessor, and Lessor shall remove same, including utility connections, from the site. The site shall be restored to original condition and finished in accordance with contract requirements.

**E. Submittal of Plans for Field Office**

The Lessor shall furnish floor plans for approval by the Resident Engineer prior to furnishing the field office.

**F. Cost of Resident Engineer's Office**

All costs associated with the Resident Engineer's office including, but not limited to, construction, demolition, hook-ups to utilities, furniture, fixtures, and equipment (RE Office Costs) shall be paid by the Lessor. Upon acceptance of the space, VA shall reimburse the

Lessor for all RE Office Costs as part of the lump sum payment VA will make upon acceptance of the space. **Offerors shall list the lump sum cost associated with Resident Engineer’s Office on Attachment #1 of GSA Form 1364A.**

**3.24 SAMPLES AND SHOP DRAWINGS**

The Lessor shall provide electronic submittals to the Government for approval of all materials and equipment, with transmittals, in accordance with this solicitation. The Government accepts no responsibility for checking schedules or layout drawings for exact sizes, exact numbers, or detailed positioning of items. Approval by the Government does not relieve the Lessor of the responsibility of complying with the requirements of the specifications and lease.

**3.25 CONSTRUCTION WASTE MANAGEMENT**

Recycling construction waste is mandatory for initial space alterations for tenant improvements and subsequent alterations under the lease. Recycling construction waste means providing all services necessary to furnish construction materials or wastes to organizations which will employ these materials or wastes in the production of new materials. Recycling includes required labor and equipment necessary to separate individual materials from the assemblies of which they form a part. Refer to Paragraph 4.8 SUSTAINABLE DESIGN AND ENERGY EFFICIENCY.

**3.26 USE OF FACILITY PRIOR TO DATE OF POSSESSION**

Space shall be delivered ready for occupancy by the date specified in Paragraph 1.6 of the Solicitation provided; however, subject to mutually satisfactory arrangements between the Lessor and the Contracting Officer, the Government may enter the premises at any time subsequent to award of the contract to conduct such ceremonies as ground-breaking, cornerstone laying, and dedication, and may occupy such portions of the property as may be necessary for such purposes. Further, the Lessor agrees to prohibit the conducting of such ceremonies in the leased premises or on the site thereof arranged by parties other than representatives of VA unless written approval is obtained from the Contracting Officer.

**3.27 PLANS: AFTER OCCUPANCY**

**EDITING NOTE: The following paragraph requires architectural and equipment plans in CAD format and reproducible mylar for management and planning purposes. Edit to include any requirements unique to the Medical Center or Station.**

Within 30 days after occupancy, the following “As-Built” 30x42 blackline print for the building under lease shall be provided to the Contracting Officer or designee. If the plans are not provided, VA will have the plans prepared at the Lessor’s expense.

Provide Two sets of blackline print floor plans, scaled at 1/8" = 1'-0". Mark all sheets "AS-BUILTS". One set for SRE and one for VAMC.

**EDITING NOTE: Insert version of AutoCAD used by the Medical Center.**

Purged computer files of architectural floor plans, and equipment plans in AutoCAD 2015 format and PDF, shall be submitted on CD-ROM or DVD, properly labeled and indexed. Submission shall be accompanied with a written matrix, indicating the layering standards to ensure that all information is recoverable. All architectural features of the spaces shall be accurately shown.

**3.28 PARTNERING**

In order to accomplish this contract effectively, the Government proposes to form a cohesive partnership with the successful Offeror and its subcontractors. This partnership would strive to draw on the strengths of each organization in an effort to achieve a quality project, executed correctly the first time, within the budget, and on schedule. This partnership will be totally voluntary. The focus of partnering is to build a cooperative relationship with the private sector and avoid or minimize disputes, and to nurture a more collaborative ethic characterized by trust, cooperation, and teamwork. Partnering is defined as the creation of a relationship between the Government and the successful Offeror that promotes mutual and beneficial goals. It is a non-contractual, but formally structured, agreement formation of a "we" mentality for the benefit of the project. Any cost associated with developing this partnership will be agreed to by both parties after contract award, and will be shared equally. At a minimum, Lessor is to include one partnering session as part of the Base Bid.

**3.29 VAAR-85273-75 SECURITY REQUIREMENTS FOR UNCLASSIFIED INFORMATION TECHNOLOGY RESOURCES (INTERIM – OCTOBER 2008)**

The contractor and their personnel shall be subject to the same Federal laws, regulations, standards, and VA policies as VA personnel regarding information and information system security. These include, but are not limited to, Federal Information Security Management Act (FISMA), Appendix III of OMB Circular A-130, and guidance and standards, available from the Department of Commerce's National Institute of Standards and Technology (NIST). This also includes the use of common security configurations available from NIST's website at: <http://checklists.nist.gov>.

To ensure that appropriate security controls are in place, contractors must follow the procedures set forth in "VA Information and Information System Security/Privacy Requirements for IT Contracts" located at the following website: [https://www.va.gov/vapubs/viewPublication.asp?Pub\\_ID=793&FTYPE=2](https://www.va.gov/vapubs/viewPublication.asp?Pub_ID=793&FTYPE=2).

**3.30 ACCEPTANCE OF SPACE AND CERTIFICATE OF OCCUPANCY**

Twenty (20) working days prior to the completion of interior construction, the Lessor shall issue written notice to the Government to inspect the space. The Government shall have ten (10) working days to inspect and to either accept or reject the subject space.

1. Substantially completed space is defined as space which can be fully used for its intended purposes (with the exception of the completion of minor punch list items), and is habitable as verified by local code and required inspections (including, but not limited to: receiving PERMANENT Certificate of Occupancy, security system properly functioning, passed life safety inspection, and government receiving final commissioning report), and completely operational for its intended tenants, clients, and visitors (see the Acceptance of Space and Certificate of Occupancy paragraph of GSA Form 3517, General Clauses). Punch list items include minor cosmetic defects such as paint touch-up, chipped ceiling tiles, and other minor corrective items which in no way compromise the use or function of the space under lease.

MINOR PUNCH ITEMS ARE DEFINED AS BOTH MAGNITUDE AND QUANTITY, WITH NO MORE THAN 100 ITEMS FOR THE INTERIOR OF THE BUILDING AND NO MORE THAN 100 EXTERIOR ITEMS TO INCLUDE ALL PARKING AREAS, ROOFS. RETAINAGE FOR OUTSTANDING PUNCH WORK SHALL BE HELD BY THE GOVERNMENT IN THE AMOUNT OF THE CONTRACTING OFFICER'S REPRESENTATIVE ESTIMATE OF UNIT COSTS X 2.

Space which is not substantially complete will not be accepted by the Government. Should the Government reject the Lessor's space as not substantially complete as defined herein, the Lessor shall immediately undertake remedial action and when ready shall issue a subsequent notice to inspect to the Government.

2. Prior to the Government's acceptance, the Lessor shall provide a valid PERMANENT Certificate of Occupancy, issued by the local jurisdiction, for the intended use of the Government and shall maintain and operate the building in conformance with current local codes and ordinances. If the local jurisdiction does not issue Certificates of Occupancy, the Lessor shall obtain the services of a licensed fire protection engineer to verify the offered space meets all applicable local codes and ordinances to ensure an acceptable level of safety is provided AND A SIGNED CERTIFICATION FROM THE COMMISSIONING ENGINEER THAT ALL BUILDING EQUIPMENT FALLING UNDER THE RESPONSIBILITY OF THE COMMISSIONING ENGINEER IS FULLY AND SAFELY FUNCTIONAL. AN APPROVED AND PASSING AIR BALANCING REPORT MUST BE PROVIDED PRIOR TO REQUEST OF ACCEPTANCE OF THE BUILDING.

**SECTION 4 GENERAL DESIGN CRITERIA**

**4.1 CODES**

The Lessor shall design and construct the building and site work in accordance with this solicitation, all applicable Federal regulations, local Building and Zoning Codes and ordinances, and applicable utility company requirements. The term "local building and zoning codes and ordinances," or similar text, shall be understood to mean the current codes and regulations as approved and administered by Authorities Having Jurisdiction (AHJ) at the project location at the time of permitting. Where there is a conflict between the various codes or standards, the most stringent shall apply.

**4.2 CRITERIA FOR VA FACILITIES**

**4.2.1 VA ADOPTED CODES, STANDARDS, AND EXECUTIVE ORDERS**

The Public Buildings Amendment Act of 1988, Public Law (Pub. L.) 100-678 requires Federal agencies to follow national recognized "model" building codes. The Federal Participation in the Development and Use of Voluntary Standards, Office of Management and Budget (OMB) Circular A-119, requires all executive agencies to rely on voluntary standards, both domestic and international, whenever feasible, and to participate in voluntary standard bodies. As a Federal agency, VA is required to comply with Executive Orders.

VA has adopted the following codes and standards as a minimum for all projects performed in the modernization, alteration, addition, or improvement of its real property and the construction of new structures. Applicable requirements have been incorporated in this Solicitation for Offers.

<b>CODES / STANDARDS</b>	<b>EDITION</b>
AIA/FGI (American Institute of Architects/Facility Guidelines Institute): Guidelines for Design and Construction of Healthcare Facilities	2014
ANSI/ASHRAE Standard 62.1 – Ventilation for Acceptable Indoor Air Quality	2010
ANSI/ASHRAE Standard 90.1 – Energy Standard for Buildings except Low-Rise Residential Buildings (Use ASHRAE Standard 90.1 – 2004 for computing energy benchmark.)	2010
ANSI/ASHRAE Standard 15 – Safety Standard for Refrigeration Systems	2010
ANSI/ASHRAE Standard 170 – Ventilation of Healthcare Facilities	2013
Architectural Barriers Act Accessibility Standards (ABAAS, 36 CFR Part 1191)	2015
ASHRAE Handbook of Fundamentals	2013
ASHRAE Handbook of Refrigeration	2010
ASHRAE Handbook of Applications	2011
ASHRAE Handbook of Systems and Equipment	2012



<b>CODES / STANDARDS</b>	<b>EDITION</b>
ASME Boiler and Pressure Vessel Code	2013
ASME Code for Pressure Piping	2004
ASPE Data Book, Volume 1: Fundamentals of Plumbing Engineering	2009-2010
ASPE Data Book, Volume 2: Plumbing Systems	2011
ASPE Data Book, Volume 3: Special Plumbing Systems	2013
Building Code Requirements for Reinforced Concrete, American Concrete Institute and Commentary (ACI 318)	2011
International Building Code (IBC), with the exception of Chapter 10, unless locally adopted	2015
International Energy Conservation Code (IECC)	2015
International Fuel Gas Code (IFGC)	2015
International Mechanical Code	2015
International Plumbing Code (IPC)	2015
Manual of Steel Construction, Load and Resistance Factor Design Specifications for Structural Steel Buildings, American Institute of Steel Construction (AISC)	2010
NFPA 101 – Life Safety Code	2015
NFPA 900	2016
NFPA 5000	2015
All Remaining NFPA National Fire Codes with the exception of NFPA 5000 and NFPA 900	Jan 2017
National Standard Plumbing Code (NSPC)	2015
Occupational Safety & Health Administration (OSHA) Standards (Healthcare)	2004
Safety Code for Elevators and Escalators, American Society of Mechanical Engineers (ASME) A 17.1	2016
Safety Standard for Refrigeration Systems – ASHRAE Standard 15	2010
SMACNA – HVAC Duct Construction Standards: Metal & Flexible	2005, 3 <sup>rd</sup> Edition
SMACNA – HVAC Air Duct Leakage Test Manual	1985
Oklahoma Department of Environmental Quality	Latest Version
VA Barrier Free Design Guide, PG-18-13	2016
US Pharmacopeia (USP) Revised General Chapter <797> Pharmaceutical Compounding-Sterile Preparations	2008
VA Physical Security Design Manual – Life-Safety Protected	2015
VA Seismic Design Requirements, H-18-8	2016
VHA National CAD Standard Application Guide	2006
ANSI/TIA Commercial Structured Cabling System standards; refer to Telecommunications Section 6.8 for additional details.	Latest Version
Technical Information Library (TIL) Specifications <a href="http://www.cfm.va.gov/TIL/">http://www.cfm.va.gov/TIL/</a>	

CODES / STANDARDS	EDITION
TIL Design Criteria <a href="http://www.cfm.va.gov/til/cPro.asp">http://www.cfm.va.gov/til/cPro.asp</a>	
TIL Technical Summaries <a href="http://www.cfm.va.gov/til/">http://www.cfm.va.gov/til/</a>	

**A. Life Safety**

NFPA 101 primarily addresses life safety and fire protection features, while the IBC addresses a wide range of considerations, including, but not limited to, structural strength, seismic stability, sanitation, adequate light and ventilation, and energy conservation. VA buildings must meet the requirements of NFPA 101 and documents referenced by NFPA 101 in order to comply with the accreditation requirements of the Joint Commission. Therefore, designs shall comply with the requirements of NFPA 101 and documents referenced therein. Design features not addressed by NFPA 101 or documents referenced therein shall comply with the requirements of the IBC.

**B. Mandatory Provisions for Energy Conservation**

Federally mandated statutory requirements for energy conservation are also applicable to the leased facilities. These requirements include:

*(1) Federal Leadership in High Performance and Sustainable Buildings: MOU (Memorandum of Understanding) Dated November 2006*

This document was signed by 21 Federal Agencies under the Federal Leadership in High Performance and Sustainable Buildings. The stated goals and objectives of the MOU are:

**New Construction:** Reduction in the Energy Cost Budget by 30% over the Baseline performance rating of ASHRAE Standard 90.1 – 2004.

Reduction in the energy cost budget shall be implemented as the reduction in energy consumption measured as BTU (British Thermal Units) or Joules (J).

For major renovations, reduce the energy cost budget by 20% below pre-renovations 2003 baseline. In the event pre-renovation 2003 baseline data is not available, the A/E shall calculate the energy consumption before renovation, compare it with the energy consumption after renovation, and document the mandated saving. It is assumed that the use of the facility shall remain similar before and after the renovation. The term "major renovation" shall meet the following two guidelines:

- Area of renovation is greater than 50% of the total area.
- A project is planned that significantly extends the building's useful life through alterations or repairs and totals more than 30% of the replacement value of the facility.

Additional issues addressed by MOU are:

**Commissioning:** For the leased facilities, commissioning of the mechanical and other building systems shall be implemented to verify the intent of the design by inspecting and testing the systems.

The Lessor shall incorporate commissioning requirements to verify that the installation and performance of energy consuming systems meet the Government's project requirements. The commissioning shall cover at a minimum: heating, ventilating, air conditioning and refrigeration (HVAC&R) systems and associated controls, lighting controls, and domestic hot water systems.

**Measurements and Verification:** Per DOE Guidelines issued under section 103 of the Energy Policy Act of 2005 (EPAc), install building level utility meters in new major construction and renovation projects to track and continuously optimize performance. MOU mandates that the actual performance data from the first year of operation should be compared with the energy design target. After one year of occupancy, measure all new major installations using the Energy Star® Benchmarking Tool for building and space types covered by ENERGY STAR® or FEMP-designated equipment.

(2) *Energy Policy Act (2005):*  
DOE issued mandatory energy conservation guidelines as the final rule for implementing provisions of EPAc 2005.

(3) *Executive Order 13423: Strengthening Federal Environmental, Energy, and Transportation Management*

Mandatory energy conservation guidelines are also reiterated in the above Executive Order DOE has mandated that a new Federal building must be designed to achieve an energy consumption level that is at least 30% below the level achieved under Standard 90.1-2004, if life-cycle cost-effective.

**C. Life-Cycle Cost (LCC) Analysis (Requirements)**

If additional 30% reduction in energy consumption were not life-cycle cost-effective, the A/E must evaluate alternate designs at successive decrements (25%, 20%, or lower) in order to identify the most energy efficient design that is life-cycle cost-effective. And in so doing, all readily available energy conservation measures, with which the industry is generally familiar, should be considered and evaluated.

DOE further stipulates that the "agencies must estimate the life-cycle costs and energy consumption of the planned building as designed and an otherwise identical building just meeting the minimum criteria set forth in the applicable baseline ASHRAE or IECC standard." This measure is meant to demonstrate and record the mandated compliance and the extent of it.

**D. Life-Cycle Cost Analysis (Methodology)**

LCC shall be performed in accordance with the procedure outlined by the Department of Energy (DOE) in the National Institute of Standards and Technology (NIST) Handbook 135 dated February 1996 (or the latest version) – Life-Cycle Costing Manual for the Federal Energy Management.

**E. Conflicts**

Should a conflict exist between VA requirements and VA-adopted nationally recognized codes and standards, the conflict shall be brought to the attention of VA. The resolution of the conflict shall be made by the authority having jurisdiction for VA to ensure system-wide consistency.

**F. Seismic Design**

The lessor is required to follow local seismic codes and all drawings shall comply with industry AIA standards. The Lessor shall be responsible for the professional quality, technical accuracy, and the coordination of all designs, drawings, specifications, and other services furnished by the Lessor under this contract. The Lessor shall, without additional compensation, correct or revise any errors or deficiencies in its designs, drawings, specifications, or other services.

**4.2.2 SPECIAL BUILDING REQUIREMENTS**

**A. Sterile Compounding Area**

**EDITING NOTE: Before editing following section, determine if a sterile compounding area is required. For outpatient clinics, this would generally apply only to the IV prep area if provided for Pharmacy or Oncology Departments.**

**Refer to Design Alert 132, VA Design Manuals, and Guide Plates in VA *Design Guide for Outpatient Clinics* for necessary features.**

**COORDINATE architecture, mechanical, and electrical items and SHOW ALL REQUIRED WORK on the Conceptual plans. Coordinate USP 797 requirements with Paragraphs 6.5, 6.6, 6.7, and SECTION 7 of this SFO.**

**COORDINATE equipment requirements with Schedule B and finishes with Schedules C and E.**

The sterile compounding area in Pharmacy shall comply with the requirements of United States Pharmacopeia (USP) <797>. Specific features are shown on the conceptual drawings; Special Equipment requirements are in Schedule B; and special finishes are in Schedules C and E.

**B. HVAC system requirements are in Paragraph 6.4. Electrical requirements are in Paragraph 6.7. Water Coolers**

The Lessor shall provide electric water coolers in the main lobby, each major waiting area, and in other areas as designated by the Contracting Officer. Lessor shall provide greater quantity of water coolers if required by Code. Water coolers shall be wall mounted bi-level electric water coolers with a water bottle filling station option.

**C. Telecommunications/Special Systems Rooms**

Design, size and construction of telecommunications, data, and special systems rooms and spaces shall comply with requirements in Paragraph 6.8.2 TELECOMMUNICATIONS/SPECIAL SYSTEMS ROOMS AND SPACE REQUIREMENTS.

**4.2.3 EXCLUSIONS FROM NET USABLE SPACE**

**A. Housekeeping Closets**

**EDITING NOTE: HACs intended for use by the Lessor for common areas are excluded from the rental space. Two is adequate for most projects; however, the quantity should be reviewed and revised if necessary. For example, a minimum of 3 HACs (1 per floor) would be required for a three-story building.**

A minimum of two (2) housekeeping aides closets (HAC) shall be provided for maintaining common areas in the building. Each HAC shall contain a service sink with hot and cold water, ample space for storage of cleaning equipment, and shelving for cleaning materials and supplies. Lessor shall provide the supplies in accordance with SECTION 8 of this SFO. **No rental will be paid for these spaces** (see Paragraph 3.14 RENTABLE AND NET USABLE SQUARE FEET of this Solicitation). In multi-story buildings, there shall be a minimum of one HAC per floor.

Provide additional housekeeping aides closets in leased spaces as required by VA Space Program (PART VI Schedule E). VA will pay rental for HACs required by Schedule E.

**B. Public Restrooms and Lounges**

Space for public toilets must be provided in addition to the net usable square footage requirement contained in Schedule E of this Solicitation. VA will pay no rental for this public restroom facility space. See Paragraph 3.14 RENTABLE AND NET USABLE SQUARE FEET of this Solicitation.

All public and common use toilet rooms shall be accessible to the handicapped. Accessible toilet facilities shall be located along an accessible path of travel and have accessible fixtures, accessories, doors with automatic door openers, and adequate maneuvering clearances. Accessible toilet rooms shall be identified with the international symbol of accessibility. Water closets and urinals shall not be visible when the exterior room door is open.

Separate toilet facilities for men and women shall be provided on each floor occupied by the Government in the building. The facilities must be located so that employees will not be required to travel more than 150 feet on one floor to reach the toilets.

Each toilet room shall have sufficient water closets enclosed with stall partitions and doors as specified in Paragraph 7.14 of this Solicitation, urinals (in men's rooms), and lavatories with hot (set at 105 °F [41 °C], if practical) and cold water in the number required by local Building Code and ordinances.

Public restrooms that have three or more stalls shall be provided with one lighting fixture on an emergency circuit or one emergency battery lighting unit with dual head.

**Public Restrooms Fixture Schedule**

Public restrooms and associated fixtures shall be provided in accordance with local code.

**C. Building Equipment and Service Areas**

**EDITING NOTE: Lessor is responsible for determining size of space required for building service equipment and maintenance and support areas.**

**Equipment spaces required for exclusive use of VA program equipment shall be listed in Schedule E and size determined by VA and SFO preparer. Show requirements in Schedule E and conceptual plans.**

Lessor shall provide adequate space for the installation, operation, and maintenance of building service equipment. Lessor shall provide office, shop, and storage space necessary for operation and maintenance of the building and grounds. **No rental will be paid for these spaces** (see Paragraph 3.14 of this Solicitation).

- Space for mechanical systems equipment.
- Space for plumbing systems equipment.
- Space for fire protection systems equipment.
- Space for electrical systems equipment.
- Space for building engineering control center.
- Office, shop, and storage space for building management services.
- Space for grounds maintenance.

**D. Public Corridors and Entrance Lobbies**

Lessor shall provide building entrance lobby as shown on conceptual plans. Lessor shall provide public corridors as necessary to common areas. **No rental will be paid for these spaces** (see Paragraph 3.14 RENTABLE AND NET USABLE SQUARE FEET of this Solicitation).

**E. Vertical Circulation**

Space for vertical circulation includes stairs (and stair enclosures or vestibules), elevator lobbies, elevator hoistways, and elevator machine rooms. **No rental will be paid for these spaces** (see Paragraph 3.14 RENTABLE AND NET USABLE SQUARE FEET of this Solicitation).

**F. Shafts and Risers**

Provide shafts, chases, and risers necessary for distribution of building services or utilities. **No rental will be paid for these spaces** (see Paragraph 3.14 RENTABLE AND NET USABLE SQUARE FEET of this Solicitation).

**4.2.4 PHYSICAL SECURITY AND NATURAL DISASTERS RESISTIVE DESIGN**

The requirements for "Life Safety Protected Facilities" (LSP) contained in the VA Physical Security Design Manual apply to all VA constructed or leased Outpatient Clinics. Lessor shall

include the following provisions for Site Considerations, Building Entrances and Exits, Building Envelope, Structural System, Utilities and Building Service, Building Systems, Security Systems, and Special Areas in the design and construction.

**A. Blast and Physical Security**

*(1) Required Qualifications*

In order to meet the physical security standards required for the project the Lessor must retain a certified physical security specialist as well as a licensed professional structural engineer who has specialized training in blast design and analysis. These specialists shall become part of the design team during the earliest phases of the project.

- The security specialist shall have a minimum of five years' experience in physical security design and shall maintain current certification as Certified Protection Professional (CPP) or Physical Security Professional (PSP) from the American Society for Industrial Security (ASIS). The security specialist must have demonstrated knowledge and experience applying security strategies, such as the application of CPTED, ballistic and forced entry requirements, and electronic security system design as defined in Chapter 10. The résumé of the specialist must be submitted to the VA Project Manager (PM) for review and approval prior to the concept phase of the project. The qualifications of the firm for whom the specialist works must also be submitted with the résumé.
- At a minimum, the structural blast specialist shall have a bachelor's degree in structural engineering or a related field and have formal training in structural dynamics and demonstrated experience with the accepted design practices for blast resistant design. The specialist shall have a minimum of five years' experience in performing dynamic analysis in blast resistant design. The résumé of the specialist must be submitted to the VA PM for review and approval prior to the concept phase of the project. The résumé must include a minimum of three projects during the previous two years with similar scope to the project being designed. The qualifications of the firm for whom the specialist works must also be submitted to the VA PM.

*(2) Blast Calculation Methods*

All blast design and analysis shall be performed in accordance with accepted methods of structural dynamics. Explosive (or shock tube) testing is required wherever operable windows are used or where the behavior of energy absorbing or other complex façade systems cannot be characterized by analytical methods.

- The performance of façade in response to blast loading is highly dynamic and often inelastic. Design and detailing of protected façade shall therefore be based on analytical methods that accurately represent the loads and response. Explosive test data, developed by an experienced testing facility approved by the U.S. Government (USG), may be used to supplement the analytical methods where a direct analytical representation is not feasible.
- Blast loads shall typically be developed using the semi-empirical relations of UFC 3-340-01, Design and Analysis of Hardened Structures to Conventional Weapons Effects, dated June 2002 (CONWEP).
- Dynamic structural response analyses shall be performed using either empirical data developed by an approved USG testing laboratory, simplified Single-Degree-of-

Freedom (SDOF) analytical methods or advanced Finite Element Methods (FEM). Where simplified SDOF methods are used, the performance criteria shall be in accordance with this document. Where advanced FEM are used, the performance shall be demonstrated through interpretation of the calculated results. Dynamic glass response analyses shall be performed using window glazing analysis and design software developed by the USG, such as WINGARDPE, WINLAC, or HAZL, which are capable of predicting the glass, film, and laminate response when subjected to the blast loading environment.

**EDITING NOTE: for the purposes of Physical Security, freestanding outpatient clinics are considered to be Life Safety Protected facilities that are not intended to remain occupied for long durations following a natural or man-made event.**

**REQUIREMENTS MAY VARY BY CLINIC SIZE OR MISSION. This template is based on an average OPC. Very large clinics (HCCFs) and smaller clinics (CBOCs) may require different levels of design to sustain their mission. Some HCCFs may require protection as Mission Critical facilities.**

**Appropriate representatives from VA Real Property and Office of Construction and Facilities must review each project to determine level of protection to be provided.**

**B. Site Considerations**

*(1) Site Access and Roads*

Separate entrances to the site shall be provided for patients and visitors, employees and staff, emergency and service and delivery vehicles. Access roads for all vehicles shall allow for separate driveways to the building entrance, service yard or parking areas.

Where the security Access Control System (ACS) is to be used coordinated with parent VA police/security software management system to secure entrance to an access road provide a 2" conduit pathway from the serving SSR to location where the ACS security components are to be installed; external conduits shall be Schedule 40 or better. At the end of the conduit adjacent to the location of the exterior ACS device provide (1) one 17"W x 30"L x 36" D (Hubbell PD Style with 1 degree flare shall be used as a basis of design) utility polymer concrete enclosure to facilitate extension of the conduit to the area where the ACS components are to be installed and the storage of cabling. Install pullbox so the lid is flush to the finished grade. Where ACS components are centrally located a single conduit and polymer concrete box system shall be used. Contactor shall ensure that the 40% maximum fill ratio is maintained in the conduit. Additional conduits and/or pull boxes may be required depending upon the length of the run and the quantity of ACS component locations. Division 26 shall provide all required electrical power, per section 6.7 of this SFO.



Access roads shall be configured to prevent vehicles from attaining speeds in excess of 25 mph. Avoid any straight-line vehicular approaches to the facility.

(2) *Vehicle Barriers*

Provide passive barriers (or active where required) adjacent to vulnerable perimeter fences, protection for site utility equipment, at building entrance, and other areas requiring additional protection from vehicles, such as outdoor eating and gathering areas. Passive vehicle barrier shall be selected on the appropriateness of the architecture of the facility and specifics of the site and natural environment. Natural or man-made barriers may be used.

- Landscaping examples include berms, gullies, boulders, trees and other terrain.
- Hardscaping examples include benches and planters.
- Structural examples include walls, bollards and cables.

Both active and passive barriers shall be tested and certified to be capable of stopping a 4,000 pound (1,800 Kg) vehicle at a speed of 30 miles per hour (48 Km/hr) with a maximum penetration distance of 3.3 feet (1m).

- Performance of anti-ram element shall be demonstrated by means of impact testing or detailed finite element analysis of the vehicle impact. Testing is to be performed using either ASTM 2656-07 or DOS SD-STD02.01, Revision A.
- Active barriers shall be electric or hydraulic wedges, bollards, beams, drop arms, or sliding gates.
- Passive barriers shall be walls, stationary bollards, cables, or combination of landscape and hardscape that achieves the required anti-ram resistance.

(3) *Parking*

No vehicle shall be parked or be permitted to travel close than 25 feet [7.62 m] to any life-safety protected VA Facility, measured from passive barrier or the edge of parking curb demarcating the internal roadways and parking to exterior face of building façade, regardless of building height.

Parking and access for patients, visitors, and the persons transporting them to and from the VA facility shall be as convenient as possible to the main entrance, subject to the requirements above. Where vehicles are unscreened, make site provisions to accommodate a shuttle service for persons needing assistance. Parking and facility access shall comply with accessibility requirements.

Emergency entrance shall be provided with a parking area for emergency patients and space for ambulances. Ambulances shall be permitted to approach the building directly and not be subjected to the distance requirements.

Vendors shall use the delivery vehicle entrance and service yard at the loading dock. Parking shall be provided for vendors in the service yard.

Where employees share access with patients and visitors, the entrance to the employee parking shall be controlled by a card-actuated gate. Employee parking areas shall be monitored by SSTV. Emergency alert systems, such as blue phones, shall be provided at the discretion of the VA Police.

When separation of types of traffic is not feasible, card-controlled access gates and other traffic separation measures shall be used. Where the security Access Control System (ACS) is to be used to secure access to parking lots and/or other exterior spaces provide a 2" conduit pathway from the serving SSR to location where the ACS security components are to be installed; external conduits shall be Schedule 40 or better. At the end of the conduit adjacent to the location of the exterior ACS device provide (1) one 17"W x 30"L x 36" D (Hubbell PD Style with 1 degree flare shall be used as a basis of design) utility polymer concrete enclosure to facilitate extension of the conduit to the area where the ACS components are to be installed and the storage of cabling. Install pullbox so the lid is flush to the finished grade. Where it is necessary to located SSTV cameras on light poles pathways within the pole shall be provided for the camera technology cabling. A 1-1/2" conduit pathway to the pole shall be provided; the pathway shall terminate within a 17"W x 30"L x 36" D (Hubbell PD Style with 1 degree flare shall be used as a basis of design) junction box. Where the distance to the camera exceed 90 meters 1GB (min) fiber media converters shall be provided to convert the camera's copper interface to fiber. All fiber media converters at the light pole shall be protected in a IP65 (min) junction box at the base of the light pole. Within the SSR rack mount the media converters where the quantity exceeds (3) three. Where ACS components and SSTV cameras are centrally located a single conduit and polymer concrete system shall be used. Contactor shall ensure that the 40% maximum fill ratio is maintained in the conduit. Additional conduits and/or pull boxes may be required depending upon the length of the run and the quantity of ACS / SSTV camera component locations. Division 26 shall provide all required electrical power. Electrical power shall be provided per section 6.7 of this SFO.

*(4) Site Lighting*

Provide minimum maintained illumination levels for pedestrian pathways, bicycle and vehicle routes, parking structures, parking lots, wayfinding, signage, pedestrian entrances, and building services which will provide safety and security for personnel, buildings, and site. Refer to the VA Electrical Design Manual for illumination requirements. Lighting shall provide for safety and security without compromising the quality of the site, the environment (including neighboring properties), or the architectural character of the buildings.

- The site lighting shall provide desired illumination and enhancement of trees, landscaping, and buildings without providing dark shadowy areas compromising safety and security.
- Site lighting shall provide VASS and other surveillance support with illumination levels and color that assists in proper identification. Lighting shall be coordinated with VASS cameras to enhance surveillance and prevent interference. Avoid blinding VASS cameras in the placement and selection of fixtures and their cutoff angles.
- Illumination levels shall be in compliance with the Illumination Engineering Society of North America (IESNA), VA Electrical Design Guide, and local and state governing agencies.

- Signage and wayfinding shall be enhanced by site lighting, including providing improved security by assisting pedestrians and vehicles to locate their destinations expeditiously. Refer to the latest edition of the VA Signage Design Guide.
- Minimize light pollution and spill into neighboring properties by selection of fixtures' cutoff angles to minimize their nuisance visibility from adjacent areas on and off VA property.

Comply with all requirements for site lighting as set forth in VA publications. In addition, the following areas require additional attention in lighting design to support security and safety needs

- Lighting shall be provided at all site entrances at illumination levels that assist in after dark performance of security duties;
  - To assist guards with visual personal identification into vehicles to see the driver's compartment and view ID;
  - To assist guards with visual screening of box trucks, cargo areas, trunks, and trailers; and
  - To provide illumination of wayfinding and other signage.
- Lighting sufficient to support VASS surveillance at perimeter fence shall be provided without objectionable spill onto neighboring properties or rights-of-way. Where a perimeter road has been provided for patrols or other functions, the lighting may be combined with roadway lighting.
- Lighting at building entrances and exits shall support VASS surveillance and ID functions while providing illumination of surfaces and features for safety.
- All parking areas covered and open shall be lighted in support of VASS and other surveillance without objectionable spill into adjacent areas on or off site.
- Pedestrian and bicycle pathways and walks, including bike racks, gates, and other features shall be illuminated in support of VASS and other surveillance, while providing for safety without objectionable spill onto adjacent areas on and off site.
- All signage shall be adequately illuminated to provide safe wayfinding and identification. Wayfinding maps and texts shall be individually illuminated.
- Liquid oxygen tanks and other enclosures, such as water tanks/towers and refueling stations, shall be illuminated in support of VASS and visual surveillance without spillage into other areas on- or off site.
- Trash collection areas shall be illuminated in service yards as a part of the yard illumination. Individual trash bins may not require illumination.
- Loading docks and associated yard areas shall be fully illuminated for operations and in support of VASS and other surveillance and identification needs.

**C. Building Entrances and Exits**

Public access to the facility should be restricted to a limited number of entrances. The public entrance is to the main lobby of the facility. Staff entrances shall be located independently of main entrance lobbies and be convenient to staff parking. Design access from drop-off to lobby to prevent a straight line of travel. Provide sufficient size to accommodate several people with mobility aids.

Public access shall include a screening vestibule with sufficient space and power, telecommunications, and data connections for installation of access control and screening equipment. When screening devices are not permanently installed, provide secure storage in close proximity to their installation location.

Entrance doors to the lobby shall be visible to or monitored by security personnel. Access from the lobby to elevators, stairways, and corridors shall be controlled. Separate the public lobby from adjacent areas with partitions that extend to the underside of the floor above. Glazing in the lobby area shall be laminated glass.

Public doors shall be capable of being remotely locked and unlocked from the reception desk in the main lobby. Secondary public entrance doors shall prevent unauthorized access. Staff entrance door hardware shall include either mechanical or electronic locks.

Means of egress doors that do not also function as entrances shall be provided with delayed action and alarmed emergency egress hardware. Delayed egress and alarmed exits shall comply with applicable codes and regulations. Means of egress shall not be obstructed by installation of security devices such as guard stations, screening equipment, or other security devices.

Access for Emergency Responders: The Fire Command Center (FCC) and secure house key box for emergency responders shall be located near an entrance door. The entrance shall be controlled and monitored by Security Surveillance Television (SSTV).

SSTV cameras shall be provided to monitor activities in the lobbies of new and existing life-safety protected facilities and shall be located to provide views of approaching pedestrian and vehicular traffic, drop-off areas, building entrances, and departing pedestrian and vehicular traffic. Provide SSTV cameras at locations with alarmed exits, at loading docks, and other areas subject to pilferage. Install door status monitors at doors intended to be used only for emergency egress.

**D. Building Envelope**

*(1) Walls*

Non-load bearing walls shall be designed such that they have some permanent deformation but are generally repairable in response to the calculated peak pressures and impulses resulting from the design level vehicle threat (W1) located at the minimum standoff distance of 25 feet [7.6 m], but no greater than GP1. Standoff provided in excess of the 25 feet [7.6 m] or increased distances over the height of the building may not be accounted for in the calculation of the blast loading environment. Although negative phase loading should not be considered, the effects of rebound shall be included in the design of blast resistant façade. Deformations shall be as defined by the B3 response limits per the Protective Design Center document PDC-TR 06-08, Single Degree of Freedom Structural Response Limits for Antiterrorism Design.

- Walls shall span from slab to slab and shall not be attached directly to gravity load bearing elements (such as columns and shear walls) unless an advanced analysis of the load bearing element demonstrates it can accept the maximum blast forces

transferred by the members framing into it without compromising its load bearing capacity.

- Walls shall be able to accept the tributary loads transferred from glazed fenestration in addition to the design level blast pressures applied directly to their surface

(2) *Fenestration and Doors*

All façade fenestration shall be designed to crack but fragments shall enter the occupied space and land on the floor no further than 10 feet [3 m] from the façade in response to the calculated peak pressures and impulses resulting from the design level threat (W1) located at the minimum standoff of 25 feet [7.6 m], but no greater than GP1. Although negative phase loading should not be considered, the effects of rebound shall be included in the design of blast resistant glazing. All blast resistant design requirements are in addition to the requirements of the VA Window Specifications. The use of operable windows for blast resistant design is discouraged; however, where operable windows are required, their performance must be demonstrated with acceptable explosive (or shock tube) test data while in the open position.

- All exterior glazing is to use laminated glass. For insulated glazing units (IGUs) the laminated glass is required only for the inner lite.
- The glass shall be restrained within the mullions with a minimum 1/2" bite and a continuous bead of structural silicone adhesive attaching the inner lite of glass to the frame to allow it to develop its post-damage capacity.
- The mullions are to be of aluminum and/or steel construction and shall be designed to accept a blast load equal to the maximum capacity of the weakest lite of supported glass (i.e., balanced design), but no less than the design level pressures while sustaining deformations no greater than L/30. For windows with glazing lay-up governed by non-blast requirements (hurricane, forced entry, fabrication, handling, and ballistic), mullions are to be designed for the capacity of the glazing that would be required to meet the blast requirements only.
- Curtain wall framing members shall span from slab to slab and shall not be attached directly to gravity load bearing elements (such as columns and shear walls) unless an advanced analysis of the load bearing element demonstrates it can accept the maximum blast forces transferred by the members framing into it without compromising its load bearing capacity

All doors shall be designed using debris mitigating materials such as laminated glass and heavy gauge metal (14-gauge minimum), shall open towards the detonation, and the heavy duty frames and anchorages shall be capable of resisting the collected blast loads. Frame rotations shall be limited to L/30.

All roll down doors shall be constructed of 14-gauge metal, and the anchorage to the overhead support shall be designed to resist the collected blast loads.

(3) *Roofs*

Roof structure (including metal deck, composite deck, concrete slabs, beams, joists, and girders) shall be designed to withstand the design level vehicle threat (W1) located at the minimum standoff distance of 25 feet [7.6 m]. Note that the GP1 peak pressure and impulse

limit should not be used in the design of the roof structure. Standoff provided in excess of the 25 feet [7.6 m] may not be accounted for in the calculation of the blast loading environment. Although negative phase loading should not be considered, the effects of rebound shall be included in the design of blast resistant roof. Deformations shall be as defined by the B2 and B3 response limits per the Protective Design Center document PDC-TR 06-08, Single Degree of Freedom Structural Response Limits for Antiterrorism Design, for primary and secondary elements, respectively. The blast loading shall take into account the presence of parapets, the diffusion of blast waves, and the spatial extent of the roof surface.

Skylight glass shall be designed to crack but remain in its frame in response to the calculated peak pressures and impulses resulting from the design level vehicle threat (W1) located at the minimum standoff distance of 25 feet [7.6 m], but no greater than GP1. Standoff provided in excess of the 25 feet [7.6 m] may not be accounted for in the calculation of the blast loading environment.

- All skylight glazing is to use laminated glass. For insulated glazing units (IGUs) the laminated glass is required only for the inner lite.
- Skylight glass shall be restrained within the mullions with a minimum 1/2" bite and a continuous bead of structural silicone adhesive attaching the inner lite of glass to the frame, to allow it to develop its post-damage capacity.
- The mullions are to be of aluminum and/or steel construction and shall be designed to accept a blast load equal to the maximum capacity of the weakest lite of supported glass (i.e., balance design), but no less than the design level pressures while sustaining deformations no greater than L/30.

Penthouse enclosures shall be designed to resist the peak blast pressures and impulses resulting from the design level vehicle threat (W1) located at the minimum standoff distance of 25 feet (7.6 m), but no greater than GP1. Standoff provided in excess of the 25 feet (7.6 m) may not be accounted for in the calculation of the blast loading environment.

**E. Structural System**

Structures shall be constructed to withstand the actual pressures and corresponding impulses produced by the design level vehicle threat (W1) located at the standoff distance and the design level satchel threat (W0) that may be delivered to loading docks, mailrooms, and lobbies. The design shall provide a level of protection for which progressive collapse will not occur, the building damage will be economically repairable, and the space in and around damaged area can be used and will be fully functional after cleanup and repairs. Standoff distances provided in excess of 25 feet [7.6 m] may not be accounted for in the calculation of the blast loading environment

*(1) Priority for Protection*

The priority for blast resistance shall be given to critical elements that are essential to mitigating progressive collapse. Designs of secondary structural elements, primary nonstructural elements, and secondary non-structural elements shall minimize injury and damage. The priority depends on the relative importance of structural or non-structural elements in the following order

- PRIMARY STRUCTURE: Primary structural elements are the essential parts of the building's resistance to catastrophic failure, including columns, girders, roof beams,

and the main lateral resistance system. Deformations shall be as defined by the B2 response limits per the Protective Design Center document PDC-TR 06-08, Single Degree of Freedom Structural Response Limits for Antiterrorism Design.

- SECONDARY STRUCTURE: Secondary structural elements are all other load bearing members, such as floor beams and slabs. Deformations shall be as defined by the B3 response limits per the Protective Design Center document PDC-TR 06-08, Single Degree of Freedom Structural Response Limits for Antiterrorism Design.
- PRIMARY NON-STRUCTURAL (NON-FAÇADE ELEMENTS): Primary non-structural elements and their attachments that are essential for life-safety systems or elements that can cause substantial injury if failure occurs, including overhead or heavy suspended mechanical units or fixtures weighing more than 31 lbs. Anchor these elements (excluding distributed systems such as suspended ceilings or piping networks) with lateral ties capable of resisting lateral motions associated with the building's calculated blast induced base shear. This requirement does not preclude the need to design the mountings for forces required by other criteria such as seismic standards.
- SECONDARY NON-STRUCTURAL: Secondary non-structural elements are all elements not covered in primary non-structural elements, such as partitions, furniture, and light fixtures. Provide a positive means of attachment of these elements to the building structure and to designing arrangements that will minimize debris following in-structure shock motions.

(2) *Progressive Collapse Prevention*

Single story structures are exempt from progressive collapse requirements. All structures with two stories or more shall be designed to minimize the potential for progressive collapse using the Tie Force Method, in which the structure shall develop peripheral, internal, and vertical tie forces by providing continuous reinforcement and ductile detailing. The requirements of the Tie Force Method for demonstrating a structure's resistance to progressive collapse shall conform to U.S. Government (USG) guidelines, specifically, Design of Buildings to Resist Progressive Collapse, UFC 4-023-03 dated 27 January 2010.

(3) *Column Protection*

Columns and load bearing walls exposed to blast loading shall be hardened or isolated to resist the effects of the design level vehicle threat (W1) located at the provided standoff distance and the design level satchel threat (W0) that may be delivered to loading docks, mailrooms, and lobbies. The design shall provide a level of protection for which progressive collapse will not occur, the building damage will be economically repairable, and the space in and around damaged area can be used and will be fully functional after cleanup and repairs. Deformation limits shall be as defined by the B2 response limits per the Protective Design Center document PDC-TR 06-08, Single Degree of Freedom Structural Response Limits for Antiterrorism Design.

(4) *Wall Protection*

Non-load bearing interior walls separating high risk interior spaces (loading docks, mailrooms, and lobbies) shall be hardened to resist the effects of the design level satchel threat (W0) that may be delivered to these spaces. Walls shall be of reinforced masonry or concrete construction. Deformation limits shall be as defined by the B3 response limits per the Protective Design Center document PDC-TR 06-08, Single Degree of Freedom Structural

Response Limits for Antiterrorism Design. Doors within these walls are to be of heavy gauge steel or laminated glass construction and are to open into the high risk space.

- Screen Walls: Non-load bearing screen walls that enclose critical equipment and the structure providing lateral resistance shall be hardened to withstand the actual pressures and corresponding impulses produced by the design level vehicle threat (W1) located at the minimum standoff distance of 25 feet [7.6 m]. Walls shall be of reinforced masonry or concrete construction. Deformation limits shall be as defined by the B3 response limits per the Protective Design Center document PDC-TR 06-08, Single Degree of Freedom Structural Response Limits for Antiterrorism Design. Doors within these walls are to be of heavy gauge steel and are to open outwards.

**F. Building Systems**

HVAC systems: locate major mechanical equipment above the ground floor in an area not subject to flooding. All air intakes shall be located so that they are protected from external sources of contamination. Locate the intakes away from publicly accessible areas, minimize obstructions near the intakes that might conceal a device, and use intrusion alarm sensors to monitor the intake areas.

- Locate all outdoor air intakes a minimum of 50 feet [15.24 m] from areas where vehicles may be stopped with their engines running.
- Locate all outdoor air intakes a minimum of 30 feet [9.14 m] above finish grade or on roof away from the roof line.

Air intakes and exhausts shall be designed to minimize the blast over pressure applied to critical mechanical equipment due to the design level vehicle threat (W1) located at the minimum standoff distance of 25 feet [7.6 m], up to a maximum peak pressure and corresponding impulse of GP1, by means of hardened plenums and internal or external structured baffles. Standoff provided in excess of the 25 feet [7.6 m] may not be accounted for in the calculation of the blast loading environment. Deformations of hardened plenums and structured baffles in response to the blast loading shall be as defined by the B3 response limits per the Protective Design Center document PDC-TR 06-08, Single Degree of Freedom Structural Response Limits for Antiterrorism Design. Anchorage of baffles shall be designed for the collected blast loads. Baffles shall provide an overlap that is equivalent to the space between the baffle and the surrounding wall. The design shall deny a direct line of sight from the design level vehicle threat (W1) located at the standoff distance to the critical infrastructure within. Where direct lines of sight cannot be denied, distributed redundancy may be required to provide continuous operations. Louvers in areas prone to hurricanes or wind hazards (in accordance with ASCE 7-10) shall be certified by the manufacturer to meet the following Florida Building Code tests: Uniform Static Air Pressure Test, Cyclic Wind Pressure Test, Large Missile Impact Test, and Wind Driven Rain Resistance Test.

Maintain positive pressure in lobbies and entrance areas.

Fire protection systems: fire department hose connections located on the exterior of a building shall be secured in suitable enclosure that limits access to authorized personnel. Coordinate with the serving fire department.



**G. Security Systems**

SSTV system shall be provided to monitor building entrances, restricted areas, mission critical asset areas, and alarm conditions. SSTV system shall be coordinated with parent VA police/security software management system for surveillance and observations of defined exterior areas, such as site and roadway access points, parking lots, and building perimeter, and interior areas from a centralized police operations room or security control center. The design, installation, and use of SSTV cameras shall support the visual identification and surveillance of persons, vehicles, assets, incidents, and defined locations. Refer to Schedule B for additional details.

The Intrusion Detection System (IDS) shall include motion detection, glass break, and door contact sensors, among other devices. These devices provide alternative methods to detect actual or attempted intrusion into protected areas through the use of alarm components, monitoring, and reporting systems. The IDS shall have the capability of being integrated with DSPI, PACS, and SSTV systems. All IDS shall meet UL 639 Intrusion Detection Standard. IDS shall be used to monitor the site perimeter, building envelope and entrances, and interior building areas where access is restricted or controlled. Refer to Schedule B for additional details.

The Physical Access Control System (PACS) shall be coordinated with parent VA police/security software management and shall include, but not be limited to: card readers, keypads, biometrics, electromagnetic locks and strikes, and electronic security management system (SMS). PACS devices shall be used for the purpose of controlling access and monitoring building entrances, sensitive areas, mission critical asset areas, and alarm conditions from an access control perspective. This includes maintaining control over defined areas such as site access points, parking lot areas, building perimeter, and interior areas that are monitored from a centralized SCC. PACS shall be able to be fully integrated with other security subsystems using direct hardwire or computer interface. Refer to Schedule B for additional details.

**Electronic Security Management System (SMS):** The SMS shall allow the configuration of an enrollment and badging, alarm monitoring, administrative, asset management, digital video management, intrusion detection, visitor enrollment, remote access level management, and integrated security workstations or any combination thereof. Entry control software shall allow for programming of the PACS via a CPU. All software shall be updated per manufacturer's instructions. Network interface devices shall consist of all hardware and software required to allow for full interface with other security subsystems via a CPU. SMS shall be coordinated with parent VA police/security software management system. Refer to Schedule B for additional details.

**Duress, Security Phones, and Intercom System (DSPI):** The DSPI system is used to provide security intercommunications for access control, emergency assistance, and identification of locations where persons under duress request a security response. All components of the DSPI shall be fully compatible and shall not require the addition of interface equipment or software upgrades to ensure a fully operational system. DSPI shall be fully integrated with other security subsystems. DSPI shall be coordinated with parent VA police/security software management system. Refer to Schedule B for additional details.

H. Special Areas

**EDITING NOTE:** The following paragraphs indicate security requirements for specific rooms or areas. Delete areas not included in program.

The Life Safety Protected Physical Security Design Manual (PSDM) refer to requirements in the Mission Critical PSDM for certain spaces as listed below. Security criteria for specific spaces or functional areas is also contained VA Design and Construction Procedures, PG-18-3, Topic 14. Edit the list of spaces to match the clinic’s program requirements.

(1) *General Design Criteria*

Apply the following considerations in the layout and design of special areas within the outpatient clinic.

**Voice**

**Voice Equipment Room and/or Main Computer Room:** The Voice Equipment Room and/or Main Computer Room shall be located not closer than 50 feet [15.24 m] in any direction to main entrance lobbies, loading docks, and mailrooms, and in no case directly above or below such spaces.

**Emergency and/or Stand-By Generators:** The emergency and stand-by generators and related switchgear may be located in a separate structure from the main building or within the main building. The generator room shall not be located at an elevation subject to flooding at any time. The generator room shall not be located closer than 50 feet [15.24 m] of a loading dock/receiving area or mailroom, and shall not be located beneath such facilities. Areaways and louver openings serving the generator shall not open to the service yard for the loading dock. Entrances from the exterior shall not open to the loading dock service yard.

**Mailroom:** The mailroom may be located in the main building or in a separate structure on the site shared with loading dock, storage, and other non-critical functions. Mailrooms within the main building shall be located on an exterior wall. Mailrooms may be located immediately adjacent the following areas: service yard, trash containers, loading dock, freight elevators, and non-critical support areas. Mailrooms shall not be located adjacent to or within 50 feet [15.24 m] of the following: Security Control Center or Police Command Center, emergency or stand-by generators, UPS, main electrical switchgear, main utility service entrances, emergency egress from the main building, flammable liquids or gas storage, and outdoor air intakes.

Exterior entrance doors and frames to mailroom shall be constructed of heavy duty hollow metal and shall be controlled and monitored. When located within the main building, structural columns passing through the mailroom and inspection area and floor slabs above them shall be structurally hardened to sustain an explosion within the mailroom or inspection area from a charge weight defined in the Life Safety Protected Physical Security Design Manual. Mailboxes, when provided, shall be in a separate room from the mailroom and inspection area,

and shall comply with the mounting heights and other regulations of the US Postal Service. The mailroom shall be separated from the mailbox room, corridors, and spaces adjoining with reinforced masonry walls and doors of hollow metal construction. The mailroom, including the inspection area and the exterior loading area serving the mailroom shall be monitored by SSTV.

Air serving the mailroom shall not circulate to other parts of the building.

**Pharmacy:** Deliveries to and shipments from pharmacies may be via the main loading dock and service yard. Pharmacies shall not be immediately adjacent the loading dock or mailroom.

**Police Operations Room and Holding Room:** Police operations room shall be located on the first floor of the building adjacent to the highest potential trouble area, such as emergency or urgent care room, or lobby and shall be located to allow appropriate response and deployment to respond to a security related event. Holding room and armory shall be located within or adjacent to the police operations room, and shall be constructed of block masonry. When the police operations room is adjacent to or opens onto areas occupied by unscreened public, such a lobbies, emergency rooms, and public corridors, construction, including partitions from slab to slab, doors, windows, and other openings separating the unit from such spaces, shall be 1-hour fire resistive, UL level 3 ballistic-resistant. IP-based SSTV surveillance shall be provided of the entire room through an opening glazed with transparent polycarbonate in a steel frame firmly anchored to the wall.

**Records Storage:** Record storage rooms shall be located not nearer than 50 feet [15.24 m] in any direction from main entrance lobbies, loading docks, and mailrooms and in no case directly above or below such spaces.

(2) *Additional Security Requirements*

Lessor shall provide the following physical security measures or features for the spaces or areas listed below.

**EDITING NOTE: Optional requirements are marked 'O' in the table below. If VA determines that such measures are required, CHANGE the mark to 'X' in the table; OTHERWISE DELETE the 'O' mark.**

SECURITY REQUIREMENTS for SPECIAL AREAS														
LOCATION	APPLICABLE REQUIREMENTS (X)													
	(See list below table)													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Canteen Retail Store	X	O	X	X	X					X	X			
Canteen Storage Room	X	O	X	X	X					X	X			
Canteen Office	X	O	X	X	X		X			O	X			
Agent Cashier	X		X	X	X		X			X	X			

SECURITY REQUIREMENTS for SPECIAL AREAS														
LOCATION	APPLICABLE REQUIREMENTS (X)													
	(See list below table)													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Pharmacy and Supply Drug Storage Rooms	X	X	X	X	X			X	X	X	X		X	
Pharmacy Dispensing Areas	X		X	X	X	X				X				
Pharmacy Manufacturing Area	X		X	X	X				X	X	X			
Acquisition & Materiel Management (A&MM) (Supply Warehouse)	O	X	X	X	X						X			
Dental Precious Metal Storage	O		X	O	X						X			
Information Resources Management – DHCP	X		X	X	X					X	X			
Main Voice Equipment Room; TRs & SSRs	X		X	X	X					X	X			
Emergency Room and Treatment Rooms												X	X	X

**EDITING NOTE:** The following paragraphs indicate specific security features or systems applicable to the above Table. Delete items and table columns not required for project.

**Coordinate with Physical Security requirements that follow this paragraph.**

**1: Windows**

Windows with sills less than 40 feet [12.19 m] from the ground or the roof of a lower abutment, less than 25 feet from windows of an adjoining building, and accessible by a building ledge leading to windows of other floor rooms require security mesh screening. Stainless steel security mesh screening shall be equivalent to woven mesh 0.028" wire diameter alloy #304 stainless steel, and have a tensile strength of 800 pounds per lineal inch. Mesh shall be equivalent to 12 x 12 per inch with main and sub frames of 12 gauge carbon steel with baked enamel finish and internal key locking slide bolts. Security mesh screens are to be installed on inside of windows.

**2: Walls**

All walls or partitions for the designated room shall be constructed to resist forced entry.

Exterior walls of brick or masonry construction shall be acceptable. Metal stud walls shall be reinforced with security mesh to provide equivalent protection.

Interior partitions may be solid 4-inch CMU or metal stud with security mesh.

Metal lath or plaster base is unacceptable as security mesh. Security mesh shall be flattened, expanded metal manufactured from high strength, low alloy steel and shall conform to ASTM F 1267, Type 11, Class 1, Mill finish. Mesh designation: 3/4 #13F; Mesh Design Size 0.923 x 2.10 inch; Mesh Opening Size 0.688 x 1.781 inch; 13 meshes per foot, 74% open area; Mesh Strand Width 0.106 inch; Mesh Strand Thickness 0.078 inch; Weight 0.75 pounds per square foot. Provide manufacturer's attachment clips and use recommended fasteners to secure mesh to wall framing.

**3: Doors And Locks**

Solid core wood or hollow steel door construction shall be 1-3/4" thick. Dutch or half doors are unacceptable. Hinge pins on door exterior (unsecured side) shall be non-removable type. Doors shall be set in hollow metal (steel) frames and fitted with mortise lock. All locking arrangements shall comply with NFPA 101 and shall require no more than one operation from the inside (in direction of egress) to unlock/unlatch the door regardless of the number of locks or latches.

Mortise lock shall have latch bolt and independent dead bolt (min 3/4-inch throw). Latch bolt must be automatically locking on door closure; requiring re-entry to the room with key or lock combination and allowing egress from the room by use of an inside lever. Key outside or thumb turn inside shall retract or project the dead bolt. When dead bolt is projected, inside lever shall simultaneously retract latch bolt and dead bolt. Combinations or keys to locks will be restricted to service employees and combinations changed immediately on the termination or reassignment of an employee.

**4: Other Room Access Means**

Ceiling overhead areas which enable entry into a secure room from an unsecured room must be barricaded by the installation of a suitable partition or ceiling which deters "up and over" access. Ventilation grills on doors which exceed 96 square inches [620 cm<sup>2</sup>] in area must be reinforced to prevent their removal from outside the room. All vents, ducts, and similar openings in excess of 96 square inches [620 cm<sup>2</sup>] that enter or pass through the secure space shall be protected with either bars or grills. If one dimension of the duct measures less than six inches [150 mm] or duct is less than 96 square inches [620 cm<sup>2</sup>], bars are not required; however, all ducts must be treated to provide sufficient sound attenuation. If bars are used, they must be 1/2-inch [12.7 mm] diameter steel welded vertically and horizontally six (6) inches [150 mm] on center; if grills are used, they must be of 9-gauge expanded steel. Openings in construction above ceilings or below raised access floors shall be protected as above.

**5: Motion Intrusion Detectors**

An IP-based intrusion detection alarm system which detects entry into the room and which broadcasts a local alarm of sufficient volume to induce an illegal entrant to abandon a burglary attempt. Intrusion detectors must have the following essential features:

An internal, automatic charging DC standby power supply and a primary AC power operation.

A remote, key operated activation/deactivation switch installed outside the rooms and adjacent to the room entrance door frame.

An automatic reset capability following an intrusion detection.

A local alarm level of 80 dB (min) to 90 dB (max) up to 100 feet [30.48 m] from the protected room.

An integral capability for the attachment of wiring for remote alarm and intrusion indicator equipment (visual or audio).

A low nuisance alarm susceptibility.

Intrusion detector equipment which operates on the principle of narrow beam interception, microwave, or photo electric eye is unacceptable.

**Installation Notes:**

A locally sounding alarm should not be installed in a room which is close to a cardiac care or other special treatment area where a loud alarm would have an injurious effect on patients.

Intrusion detector system shall interface with the SMTS and all alarms shall be remotely monitored by a commercial security alarm monitoring firm, a local police department, or a security office charged with building security. Intrusion detector system shall be coordinated with parent VA police/security software management system.

The remoted alarms will be in addition to locally broadcast alarms in the protected areas.

**6: Pharmacy Dispensing Counter**

Partitions and windows of pharmacy dispensing counters shall be UL Level 3 ballistic construction and 15-minute forced entry construction, including partitions, doors, glazed openings, teller windows, and transaction trays.

**7: Agent Cashier Counter**

Partitions and teller windows facing the public corridor shall be UL Level 3 ballistic construction and 15-minute forced entry construction, including partitions, doors, glazed openings, teller windows, and transaction trays.

**8: Bulk Drug Storage Safes And Vaults**

Drugs classified as Schedule I or II controlled substances under the Controlled Substance Act of 1970 must be stored in safes or vaults which conform to the following specifications:

Safes will be GSA class 5 security containers weighing no less than 750 pounds. Due consideration shall be applied to the design of the floor system's live load capacity.

Lessor shall construct Type I vault for outpatient clinic. Size and location are shown on the conceptual layout in this SFO. Vault specifications are as follows:

**Type I Vault:** Enclosures constructed on steel security screen, woven mesh, .047" wire diameter alloy #304 stainless steel, and have a tensile strength of 1,600 pounds per lineal inch. Mesh 10 x 10 per inch with main frame and subframes of 13 gauge alloy #304 stainless steel. In rooms with dropped ceilings, the vertical frames and mesh walls must meet the actual ceiling or a security mesh ceiling installed below the false ceiling.

**9: Bulk Drug Storage Cabinets**

Steel cabinet with adjustable shelving and built in locking devices are required for the storage of bulk supplies of Schedule II to V controlled substances.

**10: Closed Circuit TV**

IP-based security surveillance TV camera with motion detector feature on cameras and at monitor location.

**11: Special Key Control**

Room door lock keys and day lock combinations, where applicable, are Special Keys and are not mastered.

**12: Drug and Medicine Cabinets**

Lessor shall provide key locked, all steel cabinets to be firmly anchored in place are required for emergency room or treatment room storage of small quantities of controlled substances, including narcotics. Cabinet locks shall be capable of re-keying by the VA locksmith. Quantities and locations of drug cabinets shall be as listed in Schedule B.

**13: Refrigerators**

**EDITING NOTE: Include if any are to be provided by Lessor. Edit the following paragraph accordingly and coordinate with Schedule B.**

Lessor shall provide refrigerators as listed in Schedule B, equipped with built-in lock mechanism when used to store controlled substances (all schedules) and other potentially dangerous drugs and when located outside a locked or attended drug storage room.

**14: Medicine Cabinets**

**EDITING NOTE: Include if any are to be provided by Lessor. Edit the following paragraph accordingly and coordinate with Schedule B.**

VA furnished and installed.

**I. Natural Disasters Resistive Design**

**EDITING NOTE: Each case for implementation of all or part of the requirements for emergency utility services, emergency site access facilities, and non-structural hurricane or major flood design must involve a review by appropriate representatives from VA.**

**Since Life Safety Protected facilities are not intended to remain occupied for long durations following a natural or man-made event, the**

following paragraphs include provisions for 24-hour backup where applicable.

Edit following provisions for seismic, hurricane, or flood requirements as necessary based on location and local requirements.

Appropriate representatives from VA must review each case for implementation of all or part of the requirements for emergency utility services, emergency site access facilities, and non-structural hurricane or major flood design.

**REQUIREMENTS WILL VARY BY CLINIC SIZE OR MISSION.** This template is based on an average OPC. Very large clinics (HCCFs) and smaller clinics (CBOCs) may require different levels of design to sustain their mission.

Lessor shall include the following specific provisions for emergency utility services, emergency site access facilities, and resistive design of non-structural building elements. Where local Seismic Code is more stringent, comply with local code. Non-structural building elements include all components or systems that are not part of the building's structural system whether inside or outside, above or below grade. Non-structural elements of buildings include architectural, elevator and transport, mechanical, plumbing, and electrical elements.

**EDITING NOTE: CONSULT with VA Real Property Service and Office of Construction and Facilities Management before editing these paragraphs.**

**Installation.** Determinations for installation shall be based on the following factors:

\*The planned health services that the facility is to perform after the natural disaster.

\*The distance from other medical facilities that could provide assistance during and after a natural disaster.

\*The intensity of anticipated damage to the utility services of the surrounding community.

\*The likelihood of the immediate availability of alternate services for natural gas, water, and electricity.

**Earthquake areas.** Emergency Utility Services and Site Access Facilities: Requirements apply only where Moderate High, High, and Very High Seismicities are indicated.



**Resistive Design of Non-Structural Building Elements.** For new buildings, seismic restraints apply for equipment, where Moderate Low, Moderate High, High and Very High Seismicities are indicated. For existing buildings, seismic restraints apply for equipment where Moderate High, High, and Very High Seismicities are indicated.

For existing buildings, seismic restraints apply for equipment where Moderate High, High, and Very High Seismicities (See VA Seismic Design Requirements (H-18-8), Table 4) are indicated.

For new buildings, seismic restraints apply for equipment where Moderate Low, Moderate High, High, and Very High Seismicities (See VA Seismic Design Requirements (H-18-8), Table 4) are indicated.

For new and existing buildings, seismic restraints apply for piping and ductwork where Moderate High, High, and Very High Seismicities are indicated.

**Hurricane areas.** These requirements apply to VA outpatient clinics located within 10 miles of the Atlantic Ocean and 10 miles of the Gulf of Mexico. These requirements also apply to all inland VA outpatient clinics in Florida and those in Hawaii and Puerto Rico. Design for wind forces that comply with local codes. If there are no local codes, use wind forces indicated in American Society of Civil Engineers.

**J. Emergency Utilities**

**EDITING NOTE:** Based on Disaster Plan for the outpatient clinic, insert brief listing and description of extent of systems and services that must be maintained under disaster conditions.

(1) *Electric Power Services*

Provide emergency electric power in accordance with the requirements of Paragraph 6.7.8 Essential Electrical Systems for Clinics herein.

**K. Emergency Site Access Facilities**

(1) *Ground Transportation*

Provide for emergency access to VA premises from two or more public roads.

**EDITING NOTE: Include the following in earthquake areas.**

Design on-site bridges, retaining walls, culverts, and other road structures, which conduct traffic, to comply with local seismic code requirements.

**L. Seismic and Natural Disasters Resistive Design of Non-Structural Building Elements**

(1) *Definitions*

Non-structural building elements include all components or systems that are not part of the building's structural system whether inside or outside, above or below grade. Non-structural elements of buildings include:

**Architectural Elements:** Facades that are not part of the structural system and its shear resistant elements; cornices, and other architectural projections and parapets that do not function structurally; glazing; nonbearing partitions; suspended ceilings; stairs isolated from the basic structure; cabinets; bookshelves; medical equipment; and storage racks.

**Electrical Elements:** Normal and emergency power and lighting systems; switchboards, panelboards, and transformers; emergency engine-generator sets and automatic transfer switches; motor controllers; elevator and transport systems; fire alarm systems; and telecommunication systems.

**Mechanical Elements:** Heating, ventilating, and air-conditioning systems; medical gas systems; plumbing systems; sprinkler systems; pneumatic systems; and mechanical and structural elements for transport systems, i.e., elevators and dumbwaiters, including hoisting equipment and counterweights.

(2) *Earthquake Resistive Design Requirements*

**EDITING NOTE: Include the following in earthquake areas.**

**Flexibility:** Keep mechanical and electrical systems crossing building expansion or seismic joints to a minimum, and provide flexibility to allow for earthquake-generated differential movements. Where possible, restrict these crossings to lower stories. Where these systems must cross such joints, provide flexible joints, expansion loops, or other effective methods of incorporating flexibility. Allow for anticipated differential movement for sleeves and openings. Use flexible electrical raceways where connecting components would experience damaging relative movements.

(3) *Hurricane and Flood Resistive Design Requirements*

**EDITING NOTE: Include the following in high wind/hurricane prone areas.**

Design and construct the outpatient clinic building and utilities to comply with local code requirements and to provide the following resistive features.

**Automatic Transport Systems:** Provide sump pump pit for portable storm water pump in elevator pit.

**Air Conditioning Systems:** If possible, avoid the installation of outdoor equipment such as cooling towers, roof mounted fans, ventilators, and air-conditioning units on the roof. If exterior installation is necessary, properly secure equipment to withstand wind forces that comply with local codes. If there are no local codes, use wind velocities indicated in ASCE 7-05 or later version if available.

**4.3 FIRE PROTECTION**

The Public Buildings Amendment Act (PL 100-678) requires all Federal agencies to follow the latest editions of nationally recognized fire and life safety codes. Lessor shall comply with applicable provisions of the local codes and VA adopted codes and standards (Paragraph 4.2). Where conflicts exist between these standards and local codes, the designer shall satisfy the most stringent requirement. Strict compliance to codes and standards is mandatory for new construction.

**4.3.1 SITE CONSIDERATIONS**

Provide access for emergency vehicles to buildings and additions. Design roads, fire lanes, and turn-arounds for the weight and turning radius of fire apparatus. Consult local fire department for fire apparatus requirements. At minimum, one of the long sides of every building shall be accessible to fire department equipment.

Barriers must be placed adjacent to vulnerable perimeter fences, protection for site utility equipment, at building entrance, and other areas requiring additional protection from vehicles.

**Parking:** Passenger vehicles shall not be parked or permitted to travel closer than 25 feet [7.62 m] to a life-safety-protected VA facility.

**4.3.2 BUILDING CONSTRUCTION**

**Types of Construction:** Base the design on the construction type necessary to comply with code requirements for the most restrictive occupancy in the building in accordance with NFPA 101 and locally adopted codes and standards. Should a conflict exist between NFPA 101 requirements and locally adopted codes and standards, the more stringent requirement shall apply.

Consider separation distances to adjoining structures or hazards. Protect exterior walls and openings from exposure as required by Code. Locate combustible structures or structures that have combustible roof assemblies a minimum of 25 feet [7.62 m] from the exposed building. Shelters or pavilions that are of masonry construction shall not be located within 10 feet [3 m] of any building opening.

Roof coverings shall be approved or listed by a nationally recognized testing laboratory for compliance with UL standard 790 and be Class B minimum. Roof deck assemblies shall be FM Class I approved, or UL listed as Fire-Classified.

**4.3.3 OCCUPANCY TYPE**

**EDITING NOTE: Determine appropriate occupancy group based on the medical program for the clinic DURING PREPARATION OF SFO.**

Occupancy classifications are defined in NFPA 101 and as follows:

- Business Occupancy: all spaces with the exception of;
- Ambulatory Health Care: Endoscopy functional area, indicated with 1-hour fire rated construction separation from the remainder of the building.

**EDITING NOTE: Insert list of all applicable occupancy types below.**

**Note any mixed or separated uses.**

**Show locations and limits of the occupancy type(s) on the conceptual plan.**

**4.3.4 MEANS OF EGRESS**

All exits, stairs, corridors, aisles, and passageways that may be used by the Government shall comply with the latest edition of NFPA 101 ("Life Safety Code") and locally adopted codes and standards for the occupancy classification. Should a conflict exist between NFPA 101 requirements and locally adopted codes and standards, the more stringent requirement shall apply. Corridors shall comply as follows:

Major corridors shall have a minimum width of 8 feet [2.44 m] and departmental corridors shall have a minimum width of 6 feet [1.83 m]. Major and departmental corridors are defined in SECTION 7 below.

**4.3.5 FIRE PROTECTION IN HAZARDOUS AND HIGH HAZARD AREAS**

**EDITING NOTE: Determine whether building height or occupancy require an emergency voice communications system.**

Hazardous and high hazard areas within the outpatient clinic shall be protected as prescribed in NFPA 101, Life Safety Code and local building codes and ordinances. Areas identified as high hazard shall be protected by not less than a minimum 1-hour fire enclosure with C-labeled doors and automatic sprinklers.

**A. Flammable and Combustible Storage**

Flammable and Combustible Liquid Storage shall comply with NFPA 30. Do not locate laboratories in basements. Provide adequate space for flammable and combustible liquid storage cabinets.

**B. Compressed Gas/Cryogenic Liquid Storage**

**EDITING NOTE: Include following paragraph if bulk oxygen system is to be provided.**

Location, construction, and arrangement of compressed medical gas storage areas shall comply with NFPA 99.

Bulk oxygen supply systems or storage locations having a total capacity of more than 20,000 cu feet [566 cu m] of oxygen shall comply with NFPA 55.

**C. Laboratories**

**EDITING NOTE: Use first paragraph in facilities with AMBULATORY surgery, or other PATIENTS incapable of self preservation. Use second paragraph for all other facilities with laboratories.**

Laboratories using flammable or combustible liquids in buildings with outpatients incapable of self-preservation shall comply with NFPA 99. These laboratories shall be enclosed with a barrier having a one-hour fire resistance rating.

Laboratories using flammable or combustible liquids shall comply with NFPA 45.

**4.4 ENVIRONMENTAL**

**4.4.1 INDOOR AIR QUALITY**

Apply requirements of the latest version of ANSI/ASHRAE Standard 62, Ventilation for Acceptable Indoor Air Quality. This standard affects the way ventilation systems are designed and operated. Provide certification to the Contracting Officer that the building is in compliance with this standard. This certification shall be submitted as part of the commissioning process. Refer also to 4.8, SUSTAINABLE DESIGN AND ENERGY EFFICIENCY for indoor air quality before occupancy, and for use of low-VOC-emitting materials.

Air contaminant levels (e.g., dust, vapor, fumes, and gases) shall not exceed those in 29 CFR 1910.1000 and 1910.1001. When actual concentration levels equal or exceed 50% of the levels in 29 CFR 1910, remedial actions shall be initiated. Use of evaporative cooling systems will not be allowed.

The Lessor shall control contaminants at the source so that in no instances during facility operation shall levels for carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>), and formaldehyde (HCHO) exceed indicator levels for office areas of: (1) CO – 9 parts per million (ppm) time weighted average (TWA – 8-hour sample); (2) CO<sub>2</sub> – 1000 ppm (TWA); and (3) HCHO – 0.1 ppm (TWA).

Materials that are used for interior design including wall and floor treatment shall emit low amounts of Volatile Organic Compounds. Refer to Paragraph 4.8.

The Lessor shall promptly investigate indoor air quality (IAQ) complaints submitted through the Contracting Officer or his designee, as appropriate. The Lessor shall implement necessary controls to bring facility into compliance with requirements contained in this document including alteration of building ventilating, heating and air conditioning systems, and operating procedures (e.g., adjusting air intakes, adjusting air distribution, cleaning and maintaining HVAC, etc.).

VA reserves the right to conduct independent IAQ assessments and detailed studies in space it occupies, as well as in space serving the VA leased space (e.g., common use areas, mechanical rooms, HVAC systems, etc.). The Lessor shall assist VA in its assessments and detailed studies by making available information on building operations and Lessor activities, providing access to space for assessment and testing, if required, and implementing corrective measures required by the Contracting Officer.

**4.4.2 ASBESTOS**

Materials containing asbestos shall not be used. It shall be the responsibility of the Lessor to certify that asbestos-containing materials have not been used in the construction of the building to be occupied by VA. Lessor acquisition process for materials used in construction, including, but not limited to, thermal insulation, surfacing material, floor tile, sheet vinyl, and fireproofing material shall include clauses to specifically exclude asbestos from the materials being used in the building. For existing buildings, the Lessor shall submit certification signed by an independent Certified Industrial Hygienist that friable asbestos containing materials have been removed to the maximum extent feasible. The foregoing applies to soil in crawl space containing asbestos in levels that are deemed excessive by State and Federal requirements. Lessor is to provide information in the form of an asbestos survey conducted in conformance to AHERA requirements on the location of all remaining friable and non-friable asbestos. This certification shall be submitted prior to occupancy by the government. The Contracting Officer shall review the certification provided by the Lessor. Lessor shall guarantee that all non-friable asbestos that becomes friable due to any reason shall be removed in accordance with applicable State and Federal requirements.

**4.4.3 RADON MEASUREMENT AND CORRECTIVE ACTION**

Radon levels in space leased to the Government shall not equal or exceed the Environmental Protection Agency (EPA) action level for homes of 4 picocuries per liter (pCi/L).

The space proposed for lease to the Government, which is in ground contact or closest to the ground, shall be measured by the Lessor for radon and the results certified in accordance to

EPA procedures. For structures built on a slab (i.e., without a basement) radon levels shall be tested on the first floor of the structure. Radon detectors shall be placed throughout the required area to ensure coverage meets EPA and/or State recommended requirements. In any case, each detector shall cover no more than 2,000 square feet [609.6 sq m] of space. Radon shall be measured in accordance with EPA and manufacturer required procedures for a minimum of 90 days using either Alpha Track Detectors or Electret Ion Chambers. If 90 day testing period is not possible, Alpha Track Detectors may be used for a minimum period of 2 to 4 weeks or Charcoal Canisters or Electret Ion Chambers for a period of 2 to 3 days. If measurements are made for fewer than 90 days, follow-up measurements for a minimum of 90 days, using either Alpha Track Detectors or Electret Ion Chambers, must be completed. A laboratory successfully participating in the EPA-sponsored radon measurement proficiency program shall perform laboratory detector analyses. Quality control/quality assurance procedures shall be developed in accordance with industry standards and applied to radon testing results. Provide VA with a copy of the lab analysis and actual radon measurements for each detector used in support of the certification.

If the space offered for lease to the Government is in a building under construction or proposed for construction, the Lessor shall construct the building to the maximum extent feasible in such a way to minimize radon intrusion into the building. Lessor shall perform the necessary radon testing and submit a certification to the Contracting Officer within 30 days after the test is completed, but not later than 150 days after VA occupies the space. If radon measurements at or above 4 pCi/L are detected, the Lessor shall promptly initiate corrective action to reduce the level to below 4 pCi/L. If the Lessor does not affect corrective action, this is sufficient reason by itself for VA to void or not enter into the lease agreement.

VA reserves the right to measure radon in the space it leases at any time during the term of the lease. If radon measurements at or above 4 pCi/L are detected, the Lessor shall promptly initiate corrective action to reduce the level to below 4 pCi/L. If radon at or above 4 pCi/L is detected, the Lessor shall restrict the use of the area and provide comparable temporary space for the tenants until the corrective action is completed. Follow-up measurements shall be conducted by the Lessor to determine the effectiveness of the corrective action. The Lessor at no additional cost to VA shall provide all corrective actions, tenant relocation, and follow-up measurements. The Lessor shall provide VA with prior written notice of any proposed corrective action or tenant relocation.

**4.4.4 RADON IN WATER**

Two water samples constituting a sampling pair shall be taken from the same location for quality control. They shall be obtained inside the building and as near the non-public water source as is practical, in accordance with EPA's Radon in Water Sampling Program Manual. An analysis of water samples for radon must be performed by a laboratory that uses the analytical procedures as described in EPA's Two Test Procedures For Radon in Drinking Water.

The Lessor shall perform the necessary radon testing and submit a lab test and a certification to the Contracting Officer before VA occupies the space.

If the EPA action level is reached or exceeded, the Lessor shall institute abatement methods which reduce the radon to below the EPA action level, such as aeration, prior to occupancy by VA.

**4.4.5 POTABLE WATER QUALITY**

Potable water provided to VA from municipal or community water systems shall meet EPA and/or state standards for contaminants. For existing buildings, Lessor will repair or replace existing plumbing that is shown to increase the contaminants in municipal or community supplied water to levels that exceed EPA and/or state requirements.

If potable water does not meet EPA and/or state standards, Lessor shall take action necessary to reduce contamination to acceptable levels. Lessor shall test potable water periodically to ensure that it continues to meet EPA and state standards. Lessor shall provide bottled water at his/her expense at any time contaminant levels exceed EPA and/or state requirements. If potable water does not meet EPA and/or state standards, Lessor shall take action necessary to reduce contamination to acceptable levels.

**EDITING NOTE: Include this paragraph if municipal water is not available.**

Potable water provided to VA from onsite wells or other non-municipal sources shall meet minimal EPA and/or state standards for contaminants.

**4.5 SPECIAL ENVIRONMENTAL REQUIREMENTS**

**EDITING NOTE: NEPA is only required when a project is completed under a "One Step" Process.**

Any leased project over 75,000 GSF shall comply with the National Environmental Policy Act of 1969. Sites with proposed buildings of less than 75,000 GSF Must acquire CERCLA and SHPO clearance.

**EDITING NOTE: Determine requirements for special exhaust and indicate on conceptual plans or equipment schedules.**

If required, special building equipment to treat and exhaust to the atmosphere toxic gases produced by the agency program equipment shall be provided by Lessor. All such installations shall comply with appropriate OSHA, EPA or related regulations of the local community. Lessor shall obtain all necessary permits for construction and operation. In addition, provide up to 100% outside air for clinical laboratories and other areas designated in Section 6 Mechanical requirements.



4.6 ACCESSIBILITY STANDARDS

**EDITING NOTE: The ADA applies to private sector facilities (Title III) and state and local governments (Title II). The Architectural Barriers Act (ABA) applies to Federal facilities, including leased space.**

The design, construction, and alteration of facilities shall comply with local codes and ordinances. In addition, all VA facilities must comply with the Architectural Barriers Act Accessibility Standards (ABA-AS) as adopted by GSA and VA Program Guide PG-18-13, "Barrier Free Design Guide."

The ABA-AS consists of Appendices C and D to 36 CFR Part 1191 (ABA Chapters 1 and 2, and Chapters 3 to 10) and is available from United States Access Board <http://www.access-board.gov/>.

VA Barrier Free Design Guide PG18-13 is available from VA Technical Information Library at <http://www.cfm.va.gov/til/accessibility.asp>.

The Offeror shall comply with the stricter of these standards for each requirement as determined by the Government. **Offerors are cautioned that compliance with ADA does not assure compliance with UFAS or PG-18-13.** The following list includes some of the requirements from the "Barrier Free Design Guide" that typically exceed ADA or local requirements. The more stringent requirement shall be followed.

VA Accessibility Standards from PG-18-13	
Paragraph	Description of Requirement
4.1.1(5)(e)(i)	10% of total parking spaces shall be accessible
4.3.4	5'-0" minimum width for accessible routes
4.3.7	1:33 (3%) maximum slope for accessible routes, including parking spaces
	1:50 minimum gradient for walk requiring rest areas
	6'-0" x 6'-0" minimum size of level platform at doors
4.5.3	Carpet cushion or padding <u>is not</u> permitted
4.6.3	5'-0" access aisle required <u>both</u> sides of accessible parking spaces
4.7.3	4'-0" minimum width for curb ramps
4.8	Requirements for ramps:

VA Accessibility Standards from PG-18-13	
Paragraph	Description of Requirement
	1:20 maximum slope 40-foot max length for slopes between 1:33 and 1:24 35-foot max length for slopes to 1:20 4'-0" minimum clear width 6'-0" x 6'-0" minimum landing where doors swing into landing
4.9.4(5)	34" handrail height (not a range of heights)
4.10	4'-0" minimum elevator door width Double set of handrails required: 3" x 3/8" with centerlines at 30" and 42" above car floor 8'-0" x 6'-0" minimum passenger elevator platform size
4.13	2'-10" (34") minimum clear opening
4.17	Toilet Stalls: 5'6" x 6'-0" minimum accessible stall size 3'-6" x 6'-0" minimum size "front transfer" stall Grab bars are required in all stalls (not just accessible stalls)
4.22	3'-0" (36") minimum width of toilet room entrance doors
5.0	Cafeterias: 2'-3" (25") minimum knee clearance dimension, and 2'-5" (27") for minimum 5-percent of tables 40 to 48" range for cutlery and supply height

**4.7 OSHA REQUIREMENTS**

The Lessor agrees to comply with all Occupational Safety & Health Administration (OSHA) Safety and Health Standards located in 29 CFR.

**4.8 SUSTAINABLE DESIGN AND ENERGY EFFICIENCY**

**4.8.1 GREEN BUILDING RATING CERTIFICATION FOR NEW CONSTRUCTION**

A. Within 12 months of occupancy, the Lessor shall obtain certification at the Two Green Globes level from the Green Building Initiative's (GBI) Green Globes® NC program. For requirements to achieve the Two Green Globes certification, Lessor must refer to the latest

version at the time of submittal of the Green Globes® NC Technical Reference Manual (at <http://www.thegbi.org/>). At completion of all documentation and receipt of final certification, the Lessor must provide the Government two electronic copies on compact disks, flash drives, or appropriate electronic media of all documentation submitted to GBI. Acceptable file format is Adobe PDF from the Green Globes® online surveys. In addition, the Lessor will provide the Government viewing access to the Green Globes® online surveys, as applicable, during design and through the term of the Lease.

B. Prior to the end of the first year of occupancy, if the Lessor fails to achieve a Two Green Globes® certification, the Government may assist the Lessor in implementing a corrective action program to achieve a Two Green Globes® certification and deduct its costs (including administrative costs) from the rent.”

**4.8.2 STRATEGIES**

Design and construction of facilities must meet Federal Mandates for sustainability and energy efficiency.

The Lessor shall employ the following strategies.

**A. Employ Integrated Design Principles**

*(1) Integrated Design*

Use a collaborative, integrated planning and design process that initiates and maintains an integrated project team in all stages of a project's planning and delivery.

Establish performance goals for siting, energy, water, materials, and indoor environmental quality along with other comprehensive design goals and ensure incorporation of these goals throughout the design and lifecycle of the building. Consider all stages of the building's lifecycle, including deconstruction.

*(2) Commissioning*

**EDITING NOTE: Delete system/components that are not included within project scope.**

Employ commissioning practices tailored to the size and complexity of the building and its system components in order to verify performance of building components and systems and help ensure that design requirements are met. This should include an experienced commissioning provider, inclusion of commissioning requirements in construction documents, a commissioning plan, verification of the installation and performance of systems to be commissioned, and a commissioning report. The systems to be commissioned include active and passive HVAC equipment and controls, plumbing systems, lighting and daylighting controls, domestic hot water systems, and onsite renewable energy systems.

Plumbing systems shall also be integrated into the commissioning plan. The commissioning plan shall define pressure test procedures for all pipe systems, shower or bathroom basin leakage tests, plumbing fixture carrier installation, plumbing fixture flow rate adjustment, system chlorination and flush, *Legionella* disinfection, booster pump package, backflow prevention devices tested by a third party and reports included in the final commissioning

report, thermostatic mixing valves, vacuum system, medical air system, oral evacuation system, dental compressed air system, natural gas and fuel system, and special water systems.

**B. Optimize Energy Performance**

*(1) Energy Efficiency*

Establish a whole building performance target that takes into account the intended use, occupancy, operations, plug loads, other energy demands, and design to earn the Energy Star® targets for new construction and major renovation where applicable. For new construction, reduce the energy use by 30% compared to the baseline building performance rating per the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., (ASHRAE) and the Illuminating Engineering Society of North America (IESNA) Standard 90.1-2007, Energy Standard for Buildings Except Low-Rise Residential. If available, use Energy Star and FEMP-designated Energy Efficient Products.

Per the Energy Independence and Security Act (EISA) Section 523, meet at least 30% of the hot water demand through the installation of solar hot water heaters, when life-cycle cost-effective.

*(2) Measurement and Verification*

Per the Energy Policy Act of 2005 (EPA) Section 103, install building level utility meters in new major construction and renovation projects to track and continuously optimize performance. Per EISA Section 434, include meters for natural gas and steam, where appropriate.

Compare actual performance data from the first year of operation with the energy design target. After one year of occupancy, measure all new major installations using the Energy Star® Portfolio Manager for building and space types covered by Energy Star®.

Annually provide data to VA.

**C. Protect and Conserve Water**

*(1) Indoor Water*

Employ strategies that in aggregate use a minimum of 20% less potable water than the indoor water use baseline calculated for the building, after meeting the EPA 1992, Uniform Plumbing Codes 2006, and the International Plumbing Codes 2006 fixture performance requirements. The installation of water meters is encouraged to allow for the management of water use during occupancy.

*(2) Outdoor Water*

Use water efficient landscape and irrigation strategies, including water reuse and recycling, to reduce outdoor potable water consumption by a minimum of 50% over that consumed by conventional means (plant species and plant densities). The installation of water meters for locations with significant outdoor water use is encouraged.

Employ design and construction strategies that reduce storm water runoff and polluted site water runoff. Per EISA Section 438, to the maximum extent feasible, maintain or restore the predevelopment hydrology of the site with regard to temperature, rate, volume, and duration of flow, using site planning, design, construction, and maintenance strategies.

(3) *Process Water*

Per the Energy Policy Act of 2005 Section 109, when potable water is used to improve a building's energy efficiency, deploy life-cycle cost-effective water conservation measures.

(4) *Water-Efficient Products*

Use EPA's WaterSense-labeled products or other water conserving products. Choose irrigation contractors who are certified through a WaterSense-labeled program.

**D. Enhance Indoor Environmental Quality**

(1) *Ventilation and Thermal Comfort*

Meet ASHRAE Standard 55-2004, Thermal Environmental Conditions for Human Occupancy, including continuous humidity control within established ranges per climate zone, and ASHRAE Standard 62.1-2007, Ventilation for Acceptable Indoor Air Quality.

(2) *Moisture Control*

Establish and implement a moisture control strategy for controlling moisture flows and condensation to prevent building damage and mold contamination.

(3) *Daylighting*

Achieve a minimum of daylight factor of 2% (excluding all direct sunlight penetration) in 75% of all space occupied for critical visual tasks. Provide automatic dimming controls or accessible manual lighting controls, and appropriate glare control.

(4) *Low-Emitting Materials*

Specify materials and products with low pollutant emissions, including adhesives, sealants, paints, carpet systems, and furnishings.

(5) *Protect Indoor Air Quality During Construction*

Follow the recommended approach of the Sheet Metal and Air Conditioning Contractor's National Association Indoor Air Quality Guidelines for Occupied Buildings under Construction, 1995. After construction and prior to occupancy, conduct a minimum 72-hour flush-out with maximum outdoor air consistent with achieving relative humidity no greater than 60%. After occupancy, continue flush-out as necessary to minimize exposure to contaminants from new building materials. Prohibit smoking within the building and within 25 feet [7.62 m] of all building main entrances and building ventilation intakes during building occupancy.

**E. Reduce Environmental Impact of Materials**

(1) *Recycled Content*

For EPA-designated products, use products meeting or exceeding EPA's recycled content recommendations. For other products, use materials with recycled content such that the sum of postconsumer recycled content plus one-half of the pre-consumer content constitutes at least 10% (based on cost) of the total value of the materials in the project. If EPA-designated products meet performance requirements and are available at a reasonable cost, a preference for purchasing them should be included in all solicitations relevant to construction, operation, maintenance of, or use in the building.

(2) *Biobased Content*

For USDA-designated products, use products meeting or exceeding USDA's biobased content recommendations. For other products, use biobased products made from rapidly renewable resources and certified sustainable wood products. If these designated products meet performance requirements and are available at a reasonable cost, a preference for purchasing them should be included in all solicitations relevant to construction, operation, maintenance of, or use in the building.

(3) *Environmentally Preferable Products*

Use products, such as low-emitting materials or products containing no toxic metals, that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose.

(4) *Construction Waste and Materials Management*

During a project's planning stage, identify local recycling and salvage operations that could process site-related construction and demolition materials. Program the design to recycle or salvage at least 50% of the non-hazardous construction, demolition, and land clearing materials, excluding soil, where markets or onsite recycling opportunities exist. Provide salvage, reuse, and recycling services for waste generated from major renovations, where markets or onsite recycling opportunities exist.

(5) *Ozone Depleting Compounds*

Eliminate the use of ozone depleting compounds during and after construction where alternative environmentally preferable products are available, consistent with either the Montreal Protocol and Title VI of the Clean Air Act Amendments of 1990, or equivalent overall air quality benefits that take into account life-cycle impacts.

**4.9 ENERGY INDEPENDENCE AND SECURITY ACT (MAR 2016)**

A. The Energy Independence and Security Act (EISA) establishes requirements for Government leases relating to energy efficiency standards and potential cost effective energy efficiency and conservation improvements.

B. Unless one of the statutory exceptions listed in sub-paragraph C below applies, VA may award a lease for a Building only if the Building has earned the ENERGY STAR® label conferred by the U.S. Environmental Protection Agency (EPA) within the most recent year prior to the due date for final proposal revisions. The term "most recent year" means that the date of award of the ENERGY STAR® label by EPA must not be more than 1 year prior to the due date of final proposal revisions. For example, an ENERGY STAR® label awarded by EPA on October 1, 2010, is valid for all lease procurements where final proposal revisions are due on or before September 30, 2011. In lieu of the above, all new Buildings being specifically constructed for the Government must achieve an ENERGY STAR® label within 18 months after occupancy by the Government. In addition, Offerors of the following Buildings shall also have up to 18 months after occupancy by the Government, or as soon thereafter as the Building is eligible for Energy Star® consideration, to achieve an Energy Star® label: 1) All existing Buildings that have had an Energy Star® label but are unable to obtain a label in the most recent year (i.e., within 12 months prior to the due date for final proposal revisions) because of insufficient occupancy; 2) Newly built Buildings that have used Energy® Star's

Target Finder tool and either achieved a “Designed to Earn the Energy Star®” certification or received an unofficial score (in strict adherence to Target Finder’s usage instructions, including the use of required energy modeling) of 75 or higher prior to the due date for final proposal revisions and who are unable to obtain a label in the most recent year because of insufficient occupancy; 3) An existing Building that is unable to obtain a label because of insufficient occupancy but that can produce an indication, through the use of energy modeling or past utility and occupancy data input into Energy Star’s® Portfolio Manager tool or Target Finder, that it can receive an unofficial score of 75 or higher using all other requirements of Target Finder or Portfolio Manager, except for actual data from the most recent year. ENERGY STAR® tools and resources can be found at WWW.ENERGYSTAR.GOV.

C. EISA allows a Federal agency to lease Space in a Building that does not have an ENERGY STAR® Label if:

1. No Space is offered in a Building with an ENERGY STAR® Label that meets RLP requirements, including locational needs;
2. The agency will remain in a Building it currently occupies;
3. The Lease will be in a Building of historical, architectural, or cultural significance listed or eligible to be listed on the National Register of Historic Places; or
4. The Lease is for 10,000 RSF or less.

D. If one or more of the statutory exceptions applies, and the offered Space is not in a Building that has earned the ENERGY STAR® Label within one year prior to the due date for final proposal revisions, Offerors are required to include in their lease proposal an agreement to renovate the Building for all energy efficiency and conservation improvements that it has determined would be cost effective over the Firm Term of the Lease, if any, prior to acceptance of the Space (or not later than one year after the Lease Award Date of a succeeding or superseding lease). Such improvements may consist of, but are not limited to, the following:

1. Heating, Ventilating, and Air Conditioning (HVAC) upgrades, including boilers, chillers, and Building Automation System (BAS)/Monitoring/Control System (EMCS).
2. Lighting Improvements.
3. Building Envelope Modifications.

NOTE: Additional information can be found on <http://www.gsa.gov/leasing> under “Green Leasing.”

E. The term "cost effective" means an improvement that will result in substantial operational cost savings to the landlord by reducing electricity or fossil fuel consumption, water, or other utility costs. The term "operational cost savings" means a reduction in operational costs to the landlord through the application of Building improvements that achieve cost savings over the Firm Term of the Lease sufficient to pay the incremental additional costs of making the Building improvements.

F. Instructions for obtaining an ENERGY STAR® Label are provided at <http://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/earn-recognition/energy-star-certification> (use “Portfolio Manager” to apply). ENERGY STAR® tools and resources can be found at [www.energystar.gov](http://www.energystar.gov). The ENERGY STAR® Building Upgrade Manual (<http://www.energystar.gov/buildings/facility-owners-and-managers/existing->

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[buildings/save-energy/comprehensive-approach/energy-star](#)) and Building Upgrade Value Calculator (<http://www.energystar.gov/buildings/tools-and-resources/building-upgrade-value-calculator>) are tools which can be useful in considering energy efficiency and conservation improvements to Buildings.

G. If one or more of the statutory exceptions applies, and the offered Space is not in a Building that has earned the ENERGY STAR® Label within one year prior to the due date for final proposal revisions, the successful Offeror will be excused from performing any agreed-to energy efficiency and conservation renovations, and benchmarking with public disclosure (as provided in (I) below, if it obtains the ENERGY STAR® Label prior to the Government’s acceptance of the Space (or not later than one year after the Lease Award Date for succeeding and superseding leases).

H. If no improvements are proposed, the Offeror must demonstrate to the Government using the ENERGY STAR® Online Tools why no energy efficiency and conservation improvements are cost effective. If such explanation is unreasonable, the offer may be rejected.

I. Successful Offerors meeting one of the statutory exceptions above must agree to benchmark and publicly disclose the Building’s current ENERGY STAR® score, using EPA’s Portfolio Manager online software application.

J. All new Buildings being specifically constructed for the Government must achieve the ENERGY STAR® Label within 18 months after occupancy by the Government.

K. As part of the cost effective upgrades specified under sub-paragraph D above, existing lighting systems must be upgraded to meet or exceed the stated lighting specifications in the Lease unless, with respect to upgrades otherwise in excess of the minimum stated requirements, Offeror can demonstrate, using the Building Upgrade Value Calculator discussed above, that such additional upgrades are not cost effective over the Firm Term of the Lease.

NOTE: If more than 5,000 square feet of land area is to be disturbed in order to meet the Government’s requirements, a statement from Offeror that the Offeror is aware of and will comply with the specific lease requirements concerning maintenance and restoration of the real property’s hydrology is required.



**SECTION 5 SITE DESIGN CRITERIA**

**5.1 GENERAL**

A licensed Landscape Architect or Civil Engineer shall develop the site design. A Landscape Architect, licensed if state registration exists, shall develop the landscape planting plans.

Design of site elements shall comply with Uniform Federal Accessibility Standards (UFAS), with VA Supplement, Barrier Free Design Guide. See Paragraph 4.6 of this solicitation for additional information.

The Lessor shall obtain Topographic/Landscape, Electrical, and Telecommunications to include voice, data, cable television and special systems, Civil/Mechanical, and Soil Surveys and geotechnical reports. The survey limits shall include a sufficient area to cover the complete project including sufficient offsite locations of existing utilities, i.e., water, sewer, gas, electric and telecommunications. Refer all vertical elevations to permanent benchmarks based on actual geodetic datum (not assumed datum).

Comply with applicable Federal, State, and municipal laws, regulations, and permits concerning design and construction controls for environmental protection of aesthetics, air, water, and land. All the following regulatory categories apply:

- Storm water permits, e.g., National Pollutant Discharge Elimination System (NPDES) permit program
- Pollution control and solid waste disposal
- Erosion control and protection of land resources
- Protection of landscape
- Protection of water resources, wetlands, and areas preserved for wildlife

**ONE STEP** process:

VA must complete the following due diligence (1) NEPA, (2) SHPO if NEPA is not required, The Lessor is responsible for providing proof of ownership and a clean buildable site.

**GENERAL NOTE:** Geotechnical reports, surveys and appraisals should be completed by local specialists.

Ensure that the design mitigates any adverse environmental impacts. Ensure all the following:

- Surface water, during and after construction, will not adversely impact the site or areas downstream from the site.
- Grading, seeding, erosion control measures, and storm sewers are used to avoid the above.

- Air and noise pollution is minimized.
- Destruction of land resources is minimized.
- Interference with the normal function of the surrounding community during construction is minimized.

**5.2 SITE DEVELOPMENT**

Use originality and imaginative design between site and structures, vehicular and pedestrian circulation, visual elements, and open and screened area. Produce a plan that has both functional and aesthetic relationships.

Develop the Site based on an American Land Title Association (A.L.T.A ) Survey using a title report current within 90 days. Consider impacts to site encumbrances such as drainage, rock outcroppings, existing utilities, utility easements, abrupt changes in topography, and protected or mature salvageable vegetation.

**5.2.1 STORM WATER**

Consider impacts on existing natural and man-made storm water drainage patterns and systems. VA is committed to the control of storm water by the Federal Water Pollution Control Act, the Federal Flood Disaster Protection Act, and other Environmental Protection Agency (EPA) regulations that are implemented by Federal, State, and municipal jurisdictions. Provide a Hydrology and Hydraulics analysis and report in support of the proposed design.

**5.2.2 CIRCULATION**

Provide separate circulation systems for vehicular service and patient/visitor traffic.

Provide a circular driveway to the building drop-off with access to the parking areas. The drop-off shall have canopy cover designed to accommodate public bus and shuttle services.

**5.2.3 LOCATION OF BUILDING AND EQUIPMENT**

Ensure that the building property line setbacks are consistent with adjacent structures and local codes.

When locating the proposed building, structures, and equipment, consider topography, adjacent facilities, utility access requirements, environmental impacts, and future development to produce a design that is functional and aesthetically successful.

Provide landscape planting, grading, architectural screening, or fencing of exterior utility, mechanical, and electrical equipment for patient and personnel protection.

**5.2.4 PATIENT USE AREAS**

Design patient exterior areas that are conveniently accessible from the building without vehicular crossings and are oriented to the most favorable site climatic conditions.

**5.2.5 GRADING DESIGN**

Coordinate surface grades with architectural, structural, and mechanical design to provide proper surface drainage.

Consult soil classification data in the subsurface investigation (geotechnical report) in support of drainage concepts proposed as part of the Hydraulics and Hydrology analysis.

Use contours at a maximum interval of 1 foot [0.3 m] to show grading of the entire project site. Utilize spot elevations as control points.

Show any temporary (construction period) or permanent erosion control.

Condition	Maximum Slope	Minimum Slope	Preferred
Lawns	25% 4:1 <sup>a</sup>	2% 50:1	2- 10%
Turf athletic area	2% 50:1	0.5% 200:1	1%
Berms and mounds	20% 5:1	5% 20:1	
Mowed slopes	25% 4:1 <sup>a</sup>		20%
Planted slopes and beds	10% 10:1	0.5% 200:1	3-5% <sup>b</sup>
Road crown	3% 33.3:1	2% 50:1	2.5%
Roads, longitudinal*	20% 5:1	0.5% 200:1	1-10%
Walks, longitudinal	10% 10:1	0.5% 200:1	1-5%
Parking, longitudinal	5% 20:1	0.25% 400:1	2-3%

- a. The maximum slope for mowing machinery is 25%.
- b. Slopes over 6% should have erosion protection.
- c. Accessible routes used by people with disabilities shall conform to the criteria of Paragraph 2.8 of this SFO.

\* Payload is drastically reduced on heavy trucks sustaining grades over 3%. Ideal maximum sustained grade for safe operation of trucks and automobiles is 6%. On roads subject to frequent icing and winter conditions, the maximum sustained grade is 5%.

**General:** Provide complete dimensioned layouts for vehicular and pedestrian pavement, structures, and other components of the site and landscape design. Establish control for the layout by a base control line with dimensions from this line. Small scope projects may use property lines for control. Larger projects require coordinates on a grid system.

**5.2.6 DESIGN OF VEHICULAR AND PEDESTRIAN PAVEMENT**

Design the pavement to reflect topography, soils, climate, local materials, function, and other requirements and specific situations. The Geotechnical Report shall address and recommend ground preparation and pavement section design for the site.

When motorcycle parking is provided, construct designated area of non-reinforced concrete.

**A. Pavement Construction**

Design pavement sections of all roads, service areas, fire apparatus vehicle accessibility areas, and parking areas for the maximum anticipated traffic loads and existing soil conditions.

Construct service areas for truck dock, loading docks, utility buildings, trash and compactor areas, drive up canopy area, and similar facilities of reinforced concrete.

Principal roads and primary service roads shall include 12'-0" travel lanes for two-way traffic (24'-0" wide between faces of curbs). Secondary service roads shall be 12'-0" between faces of curbs. Consider two-way traffic lanes where possible. One-way traffic plans shall have a minimum width of 12'-0".

**B. Curbs and Gutter**

Design all roads with integral concrete curbs and gutters per local standards and specifications. Substitute free-standing or extruded curbs only when justified. Use flush curb at drive up canopy area.

*(1) Curb Radii*

The radii of curbs at road intersections should be 30'-0" preferred, 25'-0" minimum.

*(2) Curb Access Ramps (Curb Cuts)*

Provide curb ramps to accommodate people with disabilities as well as lawnmowers.

**C. Pavement Marking and Signing**

Provide locations and details of pavement striping and signing for parking, roadways, crosswalks, accessible parking and routes, and other special areas.

**D. Pedestrian Pavement Construction**

Design walkways to provide clearly-defined, unobstructed, direct routes through the site, interconnecting site and building entryways, curb ramps, parking areas, pedestrian landscaped features, outdoor break area, and other site elements.

Construct walks of concrete. Reinforce the concrete pavement if subbase conditions warrant. Where pedestrian and vehicular pavements meet, thicken the subbase material.

Pedestrian wearing course material may be rigid unit pavers (bricks, stone sets, concrete units, large paving slabs, etc.). To facilitate use by people with disabilities, design a rigid base of concrete or asphaltic concrete beneath pavers.

Walks should be at least 60" wide, except 96" minimum where abutting parking stalls.

Design walks to accommodate people with disabilities. Eliminate steps unless unavoidable.

**5.2.7 ENTRANCES TO BUILDING**

Coordinate work at entrances to buildings based on the requirements in the Architectural Criteria. Provide 14 feet [4.27 m] of clearance from grade to the underside of the canopy over roadways and vehicular access areas.

Provide dedicated space for ambulance parking at rear of the building.

**5.2.8 TRUCK DOCK AND TRASH AREAS**

Design adequate space for truck maneuverability and parking of facility equipment, including trash dumpsters and compactors. Provide wheel path diagram to support turning movements of facility parking equipment, delivery, and waste removal vehicles.

**5.2.9 PARKING FACILITIES**

**EDITING NOTE: Determine number of spaces required by local parking codes or VA Parking Guide, whichever is more stringent.**

Develop sufficient new parking so that the total number of facility spaces will be the greater of 945 spaces, or as required by local codes. Provide 95 parking spaces for physically disabled people (handicapped) based on 10% of total provided spaces of which 16 are van accessible spaces based on every 6 or fraction of 6 of provided accessible parking spaces. Locate these parking spaces convenient to an entrance accessible by physically disabled people.

Provide a parking tabulation on the contract drawings indicating the total number of VA facility parking spaces with subtotals for standard spaces, accessible spaces, motorcycle spaces, and van accessible spaces. Locate accessible parking spaces convenient to an accessible building entrance.

Provide parking tabulations for motorcycle parking on the contract drawings. Indicate the total number of spaces provided, using a ratio of one parking space for every 60 auto spaces. Motorcycle parking spaces shall be 4.5 feet [1.37 m] wide x 8 feet [2.44 m] long.

Reference Paragraph 4.3.1 for Parking Site Security Considerations.

Parking at angles other than 90 degrees may be used only when justifiable. Contracting Officer approval is required for deviation. Acceptable dimensions for 90 degrees parking angle are as follows.

	MINIMUM BAY WIDTH	MINIMUM STALL WIDTH
If cars overhang curbs on both sides	60'-0"	8'-6"
	59'-0"	8'-9"
	58'-0"	9'-0"

	MINIMUM BAY WIDTH	MINIMUM STALL WIDTH
If cars overhang curbs on one side	62'-6"	8'-6"
	61'-6"	8'-9"
	60'-6"	9'-0"
If cars will not overhang either curb or will be parked in the center bumper to bumper	65'-0"	8'-6"
	64'-0"	8'-9"
	63'-0"	9'-0"
Accessible Spaces		8'-0" x 20'-0" w/ 5'-0" access aisle on <u>both</u> sides
Accessible Van Spaces		8'-0" x 20'-0" w/ 8'-0" access aisle

Patient and Visitor spaces shall be 9'-0" minimum width, unless the Contracting Officer approves deviation.

**5.2.10 EQUIPMENT PADS**

Locate utility transformers, cooling towers, generators, generator fuel tanks, gaseous tank storage, and other equipment pads away from patient and visitor entries and outdoor activity areas, preferably adjacent to service area. To prevent injury to patients and personnel, enclose pad area with chain link fencing. Barriers and fencing shall comply with the requirements of the serving electric utility, where applicable.

**EDITING NOTE: Include following paragraphs if mobile diagnostic equipment is in project program.**

**Verify available service voltage at site. Verify configurations of receptacles and tele/data jacks with equipment to be used.**

**Verify design loading for equipment pad at the mobile unit.**

Lessor shall provide (1) one weatherproof junction box to support the installation of (3) three CAT6 OSP rated U/UTP data cables. The junction box and data outlet components (backbox, faceplate, connectors) shall be rated IP65 (minimum). The junction box shall be provided with a lock; keys shall be delivered to the COR at turn over. The junction box shall be installed at the same distance above the finished terrain as the box to be provided for the electrical outlets. From the Telecommunications junction box extend (1) one below grade 1-1/2" nominal OD RMC conduit pathway to the interior of the facility; conduit shall be installed at the same distance below grade as the electrical conduit or 18" below grade whichever is greater. Within the interior of the facility the conduit shall be extended to the plenum where it shall terminate within a plenum rated pull box. The plenum rated pull box shall be sized to allow for the installation of (1) one CAT6 rated protection equipment block for each CAT6 cable extended from the MRI junction box work area outlet. At the PET the OSP cable shall be terminated and a plenum rated U/UTP CAT6 cable shall be extended to the nearest

Telecommunications Room where it shall be terminated, tested and labeled in the same manner as other VA data cabling. All pathway components shall be bonded to the Telecommunications Bonding Backbone (TBB) with a #6 AWG stranded bonding strap. Interior pull box shall be labeled "Telecommunications – MRI".

**5.3 LANDSCAPING DESIGN**

Integrate the landscape planting design with the overall design of the site. The landscape planting shall compliment the architecture, preserve designated site features, facilitate water harvesting, facilitate vehicular and pedestrian access, create open areas and vegetative screens, and consist of plant material that promotes sustainable designs.

Select plants that are indigenous to the area, require little maintenance, and are disease and insect resistant. Select plant material that is nursery propagated from sources as close as practicable to the project area, that are indigenous to the area, locally available, low maintenance, and disease and insect resistant. Plant materials shall conform to the standardized system of the American Association of Nurserymen, Inc. current American Standards for Nursery Stock, ANSI Z60.1.

Do not select plants that are poisonous, highly aromatic, irritating, or thorny. In parking and pedestrian areas avoid plants that drop fruit or sap. Locate plants so they do not interfere with driver or pedestrian visibility, circulation, and safety.

Plant bed outlines curvature shall have minimum radii of 3 feet [0.92 m]. Design lawn areas to facilitate maintenance.

Provide metallic edging or concrete curbs around shrub beds (essential where Bermuda or similar grasses are grown).

Utilize ground cover on slopes steeper than 3:1, i.e., 3 feet to 1 foot.

**5.4 SITE AMENITIES**

**5.4.1 FLAGPOLE**

**EDITING NOTE: Edit to suit number of flags and flagpoles to suit preferences of the facility.**

The Lessor shall provide (3) flagpoles at locations to be approved by the Contracting Officer. Flagpoles must extend at least 30 feet above the ground and shall be equipped with rope and hardware for two flags. The Government will provide the flags. This requirement will be waived if determined inappropriate by the Government. Exterior lighting (two each, light fixtures spaced a minimum of 20 feet apart, mounted on the building or at grade) shall be provided to illuminate the flags at night. Automatic switching for light fixtures shall be provided.

**5.4.2 CANOPIES AND COVERED WALKWAYS**

**EDITING NOTE: Show desired configuration of walks and or canopies on the conceptual site plan. Edit paragraph below if needed to include all desired features.**

The walkway connecting the ambulance parking spot to the nearest building entry shall be covered with a solid roof structure or canopy. Design of the covered walk shall be integrated with the building structure and architecture. Coordinate site lighting with walkways. Provide fixtures below canopies and covered walks where necessary to maintain illumination levels for exterior walkways.

Canopies shall be designed with sufficient height to allow clearance for fire department and emergency vehicles and equipment.

The Lessor shall be responsible for constructing and carrying the cost of the canopies and covered walkways as listed above. Upon space acceptance by VA, all cost associated with the canopies and covered walkways outlined above will be paid by the VA in a lump sum payment to the Lessor. Offerors shall list the lump sum cost associated with canopies and covered walkways on Attachment #1 of GSA Form 1364A.

**5.4.3 EXTERIOR ACTIVITY AREAS AND YARDS**

Provide exterior patio or yard areas for outdoor activities and dining as shown on the conceptual plans. Outdoor areas shall be designed with a diversity of landscape and hardscape elements to create an environment capable of accommodating a variety of activities. Areas shall be separated from truck dock, trash areas, and outdoor mechanical equipment.

The Lessor shall be responsible for constructing and carrying the cost of the exterior activity areas and yards as listed above. Upon space acceptance by VA, all cost associated with the exterior activity areas and yards outlined above will be paid by the VA in a lump sum payment to the Lessor. Offerors shall list the lump sum cost associated with exterior area and yards on Attachment #1 of GSA Form 1364A.

**5.5 UTILITIES**

**5.5.1 WATER DISTRIBUTION SYSTEM**

**Editing Note: If an onsite water storage tank is required for the OPC, Lessor shall be the owner of all tanks and be responsible for taking corrective action in the event a tank malfunctions or is in violation of EPA and State regulations.**



Design and construct system to provide adequate water service for maximum domestic and fire protection requirements.

Place isolation valves to provide control over reasonably sized area. In addition, designate valves in fire hydrant branches and building service lines, near their connection to feeder mains.

Where reduced pressure backflow preventers are required, provide positive drainage.

Connection fees, meter, and system impact fees, as required by the water provider to connect to the existing water distribution system, are the responsibility of the Lessor.

**A. Domestic Water Pumping System**

**EDITING NOTE: Include if required by project conditions.**

If onsite pumping for domestic water is required, use a three-pump system. Size one pump for approximately one-third of the total water demand. Each of the other pumps shall be sized for approximately two-thirds of the total demand. The smaller will operate until water demand exceeds the pump's capacity, at which point it will stop and one of the other larger pumps shall start. When the demand exceeds the capacity of this larger pump, the smaller pump will restart and both pumps will operate together. The other large pump will be a standby and alternate with the first large pump. Provide a pneumatic tank and "NO-FLOW" shut-down controls.

**5.5.2 WATER SUPPLY FOR FIRE PROTECTION**

Assess adequacy of the water supply. The Lessor must verify the locations involved as well as the quality and accuracy of the data. Perform water supply flow testing.

**EDITING NOTE: Coordinate with Occupancy Type(s) as determined in Paragraph ERROR! REFERENCE SOURCE NOT FOUND..**

Fire flows shall be available as required by NFPA 13 for the required occupancy classification. However, duration for Ambulatory Health Care occupancies shall not be less than 60 minutes. The Lessor shall verify and submit documentation of the fire department's capability of handling the manual fire fighting requirements to the Contracting Officer prior to occupancy by the Government.

Fire Pumps:

When a fire pump is necessary to supplement fire flow and pressure, size it to comply with NFPA 13.

**5.5.3 SANITARY SEWERAGE SYSTEM**

**Editing Note: Contact local wastewater authority prior to editing.**

**Determine if there are any requirements for "industrial wastewater" or other special requirements based on clinic program and anticipated wastewater generation.**

**Edit as necessary to suit program and local requirements.**

Design separate underground sanitary sewerage system, including building connections, manholes, clean-outs, cooling tower waste lines, and all appurtenances.

Provide an adequate number of sanitary connections from each building.

Discharge cooling tower drains, overflows, and blow-down piping systems to the sanitary sewerage system. Provide air gaps to prevent cross connections between sewerage and water systems.

To the extent feasible, do not locate sewer pipes and manholes under pavement. Provide manholes at junctions, changes in direction, changes in slope, and changes in invert elevations of sewers 8 inch and above. Clean-outs are required for 4 and 6 inch sewers. Spacing between manholes shall be a minimum of 300 feet [91.44 m], except 500 foot [152.4 m] spacing is permitted in straight runs of long out-fall sewers unless otherwise required by local jurisdictional standards.

Limit sanitary trunk sewers to not less than 8 inch diameter and sanitary sewer building connections to not less than 4 inch diameter. Establish sanitary sewer slopes to provide minimum velocity of 2 ft/s [0.6 mm/s] when pipe is flowing full; maximum slope shall be 9%.

Do not connect storm drainage system to sanitary sewerage systems.

Connection fees and system impact fees as required by the municipality to connect to the existing sewerage system are the responsibility of the Lessor.

**5.5.4 STORM DRAINAGE SYSTEM**

Design separate underground sanitary and storm sewerage systems, including drainage inlets (yard and curb), junction structures, manholes, open drainage channels and basins, dry wells, etc.

Design all components of storm sewerage system on basis of not less than 10-year storm frequency for one hour.

Comply with the requirements of off-site receptor of storm water. Retention may be required; however; roof storage of storm water is not allowed.

Limit storm sewers serving drainage inlets to not less than 8 in [200 mm] diameter and building connections to not less than 4 in [100 mm] diameter. Establish storm sewer slopes to provide minimum velocity of 2 ft/s [0.6 mm/s] when pipe is flowing full. Maximum storm sewer design velocity shall be in non-erosive range for specified pipe material.

Use State or local standard details for manholes, inlets, endwalls, and pipe cradles. Adjust master specifications as necessary.

Provide an adequate number of storm connections from each building.

Storm drainage system shall serve all areas under construction or affected by construction. Design storm drainage system and components based on storm frequency from local codes and methodologies. Comply with the requirements of off-site receptor of storm water. Retention/detention may be required and should be designed on the percolation results stated in the geotechnical report and the design volumes calculated in the Hydrology and Hydraulics analysis. Do not connect storm drainage system to sanitary sewerage systems.

Do not drain outside building sub-soil drain tile to an interior sump pump. If a pump is required, locate it outside of the building.

Provide emergency overflow and backflow equipment for detention and retention ponds. It is not recommended to use underground stormwater chamber. Stormwater devices and elements shall be maintained annually and documented for the duration of lease period.

**5.5.5 GAS DISTRIBUTION SYSTEM**

Coordinate with gas company concerning housing and/or fencing for gas metering and regulating equipment. Provide gas filter upstream of meter.

**5.5.6 ELECTRICAL SERVICE**

Provide underground secondary-voltage electrical service from the serving electric utility. All requirements of the electric utility shall be met, including location of service source, above-ground and underground equipment locations, required easements and/or rights-of-access, above-ground equipment protection and screening requirements, location of required service disconnecting means and/or remote operation for service disconnecting means, as required by the local Authority Having Jurisdiction or utility, meter location and provisions for meter-reading access, co-location of service conductors in common trench with other utility services, and all other applicable requirements of the electric utility.

**5.5.7 TELECOMMUNICATIONS SERVICES**

Provide underground pathways to facilitate voice / data service from the preferred voice / data service provider. Pathways shall comply as to quantities of conduits and type of conduit as noted in Section 6.8. Incoming OSP conduits shall be rated Schedule 40 (minimum) and shall terminate in the Main TR, unless otherwise noted. OSP conduit pathways shall:

1. include the placement of 6' wide x 7' high x 10' long precast concrete manholes every 400' (first manhole shall be provided 400' from ingress of VA property line by Service provider cabling)
2. convert to RMC at changes in direction and elevation, and
3. use wide sweeping bends when changing directions.

OSP conduits shall extend 6" AFF in the facility Entrance Facility (EF) and shall be trimmed with bonding bushings and be bonded to the TGB located in this space.

A 4' x 4' x 4' (min) handhole shall be provided within 15' of the building exterior wall (place in-line with a straight path to the floor space within the Entrance Facility where the OSP conduits will ingress the EF; all OSP telecommunications conduits (VA OI&T and FMS) shall ingress this handhole; this handhole shall act as the final pull point for incoming telecommunications cabling. OSP conduits that ingress and egress manholes and handholes shall be trimmed with bells and plugged until cabling is installed. OSP conduits shall then be extended to the Main Telecommunications Room (MTR) below grade.

Contractor shall coordinate ingress to EF with COR for written approval. Installation of the copper and fiber trunks shall comply with all requirements of the voice / data service provider for cable installation, POP space and security requirements, and POP equipment and access provisions. Within each 4-inch OSP conduit provide (3) three corrugated side based innerducts or pre-approved equivalent; within each innerduct provide (1) one 2,000 LBS (min) 5/8" polyester mule tape with footage markers every two feet. Index each mule tape on both ends. Backbone cabling required for the VA OI&T and the FMS Special Systems networks may share the same cable sheath; where a separate trunk is used for the VA OI&T and the FMS networks the trunks shall be installed in separate innerducts. Note: copper and fiber backbone cabling shall not share the same conduit. Telecommunications trunks (copper and fiber) shall not share joint trenches with other incoming utilities (electrical, gas, water, CATV, etc.).

Provide a minimum of 50 copper pairs for the VA OI&T network and 50 pairs for the FMS Special Systems. The 50 pairs designated for the VA OI&T and the 50 pairs designated for the FMS Special Systems shall enter the building in schedule 40 conduit/s noted above and shall terminate in the building Entrance Facility on a wall mounted 150-pair 110-based Protection Equipment Terminal (PET) block. Bond this PET to the TBB. From the PET extend the VA OI&T 50 pairs to a wall mounted 110-block with legs in the Main TR; extend the FMS 50 pairs from the PET to a wall mounted 110 block with legs in the Main SSR. Tie cabling to meet NEC requirements and to be provided the approved pathway components per the Conduits Requirements table located in Section 6.8.

From the EF provide, at a minimum, (1) one rated 12-strand singlemode armor sheathed fiber trunk to the Main TR where the trunk cable shall terminate with fusion splicing in a rack mounted 1RU fiber enclosure dedicated to the incoming fiber for the VA OI&T network. The contractor shall also provide at a minimum (1) one rated 12-strand singlemode armor sheathed fiber trunk to the Main SSR where the trunk cable shall terminate with fusion splicing in a rack mounted 1RU fiber enclosure dedicated to the incoming fiber for the FMS Special systems network.

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All backbone fiber and copper trunks shall meet the locally observed NEC as to the plenum rating or shall be encased in conduit.

Provide a 2" Schedule 40 conduit (conduit shall be extended 5 FT from the 4'x4'x4' handhole to be installed for the voice and data cabling) to facilitate the implementation of MATV (CATV) services from the local preferred CATV service provider. The CATV service provider's cabling shall enter the building via this conduit/handhole system. From the handhole a 2" Schedule 40 conduit shall be extended to the Main SSR where it will ingress the floor in a location to be pre-approved by the COR. Installation of the pathway and other components shall comply with all requirements of the cable service provider for the cable installation, POP space and security requirements, and POP equipment and access provisions. Cabling shall bonded to the TBB.

Pathways from the service provider right-of-way shall include the placement of 6'x7'x6' precast concrete manholes designed for the traffic to be presented in the area of the placement to keep the length of any one segment of conduit pathway from exceed 400 feet. Concrete placement is not requirement for the OSP conduits but a #8 tracer wire shall be attached to the uppermost conduit in the trench and a warning tape shall be installed 18" above the tracer wire. Minimum distance below the finished terrain for the conduit system shall be 36".

**5.6 EXTERIOR SIGNAGE**

**EDITING NOTE: Consult VA *Signage Design Guide* for development of exterior signage components for inclusion in the SFO.**

Lessor shall develop and provide a complete exterior signage program to include identification, directional, informational, and regulatory signage. Signage must comply with local municipality's codes and specifications. Careful consideration of the location of monument signs shall be taken to avoid sight triangle encroachment.

Lessor shall provide ground mounted, interior illuminated, horizontal monument sign to identify the Outpatient Clinic main entrance. Lessor shall provide foundations and electrical power as necessary. Base shall be concrete or masonry and shall be compatible with building design and landscaping scheme. Monument sign shall be 5'-0" high x 12'-0" wide . VA will furnish message layout, content, and colors for the monument sign. Graphic process shall be routed out copy backed with white, translucent acrylic.

Lessor shall provide illuminated, wall mounted building identification signs of dimensional powder coated or anodized aluminum letters and numerals with VA logo. Letters and numerals shall be minimum 16 inches high. Logo shall comply with VA signage design guide and shall be 48 inches high. Sign messages shall be as follows:

Facility Name: **Tulsa Ernest Childers VA Community Based Outpatient Clinic.** VA logo shall precede facility name.

Address sign shall consist of numerals for the building street address.

Wall mounted building signs shall be prominently located to be visible from street approach in accordance with VA-approved building elevations.

The cost of signage and installation of exterior signage shall be paid to Lessor by the VA in a lump sum amount upon commencement of the lease. Offerors shall list the lump sum cost associated with exterior signage on Attachment #1 of GSA Form 1364A.

Where exterior signage requires LAN connectivity provide a 1-1/2" Schedule 40 conduit pathway to location of the signage. At the end of the conduit adjacent to the location of the exterior signage provide (1) one 17" W x 30" L x 36" D (Hubbell PD Style with 1 degree flare shall be used as a basis of design) utility polymer concrete enclosure to facilitate extension of the conduit to the area where the signage components are to be installed and the storage of cabling. Install pullbox so the lid is flush to the finished grade.

**SECTION 6 BUILDING DESIGN CRITERIA**

**6.1 STRUCTURAL**

Structural design shall comply with the locally adopted codes and VA Seismic Design Requirements H-18-8 (<http://www.cfm.va.gov/TIL/seismic.asp>). Structural members shall be of concrete, masonry, or steel. Wood may be used as permitted by building and life safety codes for the Occupancy Group (Business or Ambulatory Care) and size (floor area) and height of structure required by the clinic program.

**EDITING NOTE: Use the following paragraphs if VA will allow existing buildings to be offered for lease.**

Where applicable, a licensed structural engineer shall verify the load-bearing capability of the existing structural elements to support the new design loads. Provide evidence of compliance with lateral force requirements with offer as specified in Paragraph 1.7 HOW TO OFFER.

Where alterations are made to the structural elements in existing buildings, these elements individually, and the buildings as units, must maintain adequate strength to safely resist both gravity and lateral loads. Any resulting deficiencies must be reinforced accordingly.

**6.1.1 FOUNDATIONS**

The building foundation system shall be designed in accordance with the recommendations of the geotechnical report.

**6.1.2 FLOOR LOADS**

Minimum uniform basic design live loads shall conform to the locally adopted codes and as follows.

In order to provide a flexible design for occupancy changes in the future, generalized live load categories should be applied to large areas of the floor plate.

Where actual occupancy load requirements or concentrated equipment loads exceed the minimum uniform live loads, the areas in question shall be designed to meet the specific load conditions.

**6.1.3 ROOF LOAD**

Roof live loads shall be based on geographical location and local governing building code requirements; however, they shall not be less than 20 psf [0.96 kPa].

VA may install a rooftop mounted satellite system or other rooftop antennas for the building. The Lessor shall provide a roof structure, which accommodates VA's system, and shall coordinate with VA to provide the required structural mounting devices.

**6.1.4 LATERAL FORCES**

VA classifies Outpatient Clinics as "essential" or "critical" facilities. Design structures for lateral forces in accordance with local building code requirements for wind and seismic forces using importance factors for essential structures.

In addition to local code requirements, all new facilities, new additions, and existing buildings requiring major renovation and/or seismic strengthening shall be designed in accordance with VA Seismic Design Requirements H-18-8.

**6.1.5 SPECIAL INSPECTIONS**

Lessor shall comply with all special inspection requirements of the local Authority Having Jurisdiction. Lessor shall obtain services of qualified, independent entities to provide special inspection services during construction. Lessor shall provide copies of the inspectors' reports to the Contracting Officer as evidence of compliance with Codes and the requirements of this solicitation.

**6.1.6 BLAST LOADS**

Design structural systems for overpressures and dynamic loadings for threat category as established by VA Physical Security Design Manual for Life Safety Protected facility.

**6.2 ARCHITECTURAL**

**6.2.1 FOUNDATION DRAINAGE**

**EDITING NOTE: Include this paragraph where topographical or other factors exist which would lead to uncertainty regarding the ability of natural drainage to function and thereby avoid damage by subsurface water.**

Subsoil (foundation) drainage provides a means of removing water that may percolate to the footing level of a building foundation system. Reference the geotechnical report for specific percolation results. Provide a subsoil drainage system in accordance with site Hydrology and Hydraulics studies. Subsoil drains shall maintain a pitch as uniform as possible and shall drain to suitable outfall. No subsoil drainage piping shall traverse a building area to reach an outfall.

**6.2.2 PATIENT ENTRANCES**

Provide canopies over patient entrances to outpatient clinic. The canopies shall extend 2 feet [0.6 m] beyond the curb lines to protect patients from inclement weather. To reduce the size and cost of canopies, locate the curb line near the entrance if compatible with other design



considerations. Canopies shall be designed with sufficient height to allow clearance for fire department and emergency vehicles and equipment.

**6.2.3 AMBULANCE ENTRANCES**

**EDITING NOTE: Design ambulance entry in accordance with VA NCS Standard Details; see PG-18-4.**

Provide ambulance entrance as indicated on conceptual plan. Ambulance entrances shall include provisions for wheelchair and litter access.

**6.2.4 LOADING DOCKS**

Loading dock platforms shall be 4 feet [1.22 m] above the driveway. Platforms shall have a minimum depth of 8 feet [2.44 m] front to back or between dock lift/leveler and back wall. Provide a canopy over the platform with 14 feet [4.27 m] of clearance from grade to the underside of the canopy. Provide a stair or a ramp to the platform.

**EDITING NOTE: Select manual or hydraulic levelers and determine quantity based on size of facility and anticipated types and volumes of material handling.**

**For hydraulic levelers, coordinate power requirements with electrical.**

**Alternatively provide hydraulic platform lift.**

Provide dock levelers where shown on conceptual plans. Dock levelers shall be hydraulic with 25,000 pound [11,340 kg] capacity for recessed installation at loading dock.

**6.2.5 CANOPIES OR COVERED WALKS**

Provide canopies or covered walkways from the outpatient clinic building to locations as shown in the conceptual plans. If canopies or covered walks extend over truck or bus traffic areas, provide 14 feet minimum or per local code, whichever is greater, to allow vertical clearance for vehicular traffic.

**6.2.6 ENCLOSURE SYSTEMS**

Building envelope systems shall be designed with consideration for performance under local climactic conditions, appearance, durability, security, efficiency in construction, and maintenance and operating costs. Comply with the requirements of this SFO for Sustainable Design and Energy Efficiency, Paragraph 4.8.

Design for heat loss or gain in accordance with energy criteria in this solicitation. Provide vapor barriers at appropriate side of construction based on local climatic conditions.

Fire resistance of building envelope systems shall be as required by applicable codes for construction type and exposure.

**A. Exterior Walls**

Materials and colors shall be consistent with the overall design concept and structural requirements, and provide the level of physical security required by this solicitation. Walls shall be designed to prevent moisture penetration. Detail and construct moisture barriers, wall cavities and weeps, flashings, and other features as necessary to prevent damage to wall components or entry of moisture into building. Masonry parapet walls are potential sources of water penetration, unequal thermal expansion, additional structural loads, and increased costs. Proposed parapet walls must be justified by aesthetic, functional, or economic considerations.

Structural design of walls shall comply with Paragraph 6.1. The weight of masonry curtain walls or veneer shall be supported by the structural frame at each floor.

**EDITING NOTE: Include the following paragraph if sound control is necessary.**

Design walls for sound transmission control from external sources at sites near airports, freeways, railways or heavy city traffic.

**B. Fenestration**

Lessor shall provide fenestration (windows) consisting of fixed windows, or glazed storefront or curtain wall, including glazed entrance systems, consistent with the overall design concept. Size windows and select glazing and frame materials to meet the overall building envelope performance and sustainability requirements of this SFO.

Window sills/stools shall be a minimum of 18 inches [457.2 mm] above the finished floor.

Windows in examination and treatment rooms shall be designed to maintain patient privacy. Use clerestory windows, patterned or obscured glazing, or other methods as appropriate.

Windows shall comply with Security requirements in SECTION 4 of this solicitation. Provide security screens where required by SECTION 4.

*(1) Safety Glazing*

Glaze windows occurring in security exam rooms or security holding room with 7/16" thick laminated glass. Provide laminated glass only for interior panes of double-glazed windows.

**C. Louvers and Screens**

Provide louvers in wall openings where required for ventilation. Design louvers and anchorage for wind loads in accordance with building codes. Louvers shall bear AMCA certified rating seals for air performance and water penetration ratings. Provide bird screens on mechanical ventilation supply and exhaust openings in exterior walls. Provide insect screens on the inside of louvered openings in exterior walls where there are no duct connections.

Comply with security requirements in SECTION 4 of this solicitation.

**D. Exterior Doors**

**EDITING NOTE: Edit the following paragraph to reflect preferred entrance door system.**

Entrance doors shall be automatic sliding anodized aluminum construction with safety glazing and shall comply with energy and sustainability requirements.

Swinging exterior doors and frames, except entrance doors, shall be heavy duty, insulated, full flush, hollow steel construction. Exterior doors shall be weather-stripped, self-closing, and open outward. Door hardware shall comply with applicable portions of SECTION 7 of this solicitation. Provide latch guards and hinges with non-removable pins to deter tampering or unauthorized entry.

**EDITING NOTE: Edit the following paragraph to reflect project requirements and preferences.**

Doors for vehicular access, including doors to warehouse, and spaces containing building service equipment, shall be insulated, industrial grade overhead coiling doors. Nominal size of the door opening shall be 8'-0" wide x 9'-6" high.. Doors shall be fully weather-stripped and include an electric operator and manual chain hoist operation. Operator controls shall be located on the secure (interior) side of the opening and shall incorporate a cylinder lock. Provide safeties, including door edge sensors. Overhead door(s) shall not have vision lights.

*(1) Automatic Doors*

**EDITING NOTE: Identify locations of automatic doors on conceptual plans.**

Design automatic doors to operate manually in event of power failure. Equip controls with safety devices for pedestrian protection. Provide door operator controls and equipment that are easily accessible for maintenance. Design automatic doors to open from both sides.

**E. Roofs**

Provide roofing systems to comply with building codes and fire resistance requirements. Design all roofs with slope to roof drains or gutters. Roofs shall not slope to level valleys, but may have one-way slopes to gutters at gravel stop edges.

Size roof drains and overflow drains, scuppers, or gutters; and leaders or downspouts to comply with plumbing codes. Locate drains at points of maximum deck deflection where possible. Coordinate roof drainage with site (storm) drainage. Where roof drain leaders do not connect directly to storm drains, provide scuppers under all sidewalks and flatwork to convey storm flow to site drainage system.

Design roofing systems (including anchorage of roof insulation to decks) for wind force resistance in accordance with Factory Mutual Global (FM-Global) Criteria:

- Loss Prevention Data 1-7, "Wind Forces on Buildings and Other Structures"
- Loss Prevention Data 1-28, "Insulated Steel Deck"

- Loss Prevention Data Technical Advisory Bulletin 1-29, "Loose-Laid Ballasted Roof Coverings"
- Loss Prevention Data 1-49, "Perimeter Flashing"

Use minimum 8-inch high base flashing at walls and penetrations. Do not use pitch pockets or similar penetration seals.

VA may require a rooftop mounted satellite system or other roof top antennas for the building. The roof shall be maintained in a watertight condition at all such mounting locations. Provide appropriate sized conduit sleeving and weatherproof box at roof end of conduit sleeve.

Shield roof-mounted equipment from view. Roof structures, such as penthouses and architectural screens, shall be compatible in appearance with the material, texture, color, and shape of the building.

Whenever mechanical equipment requiring periodic maintenance is installed on a roof, provide access to roof areas by industrial stair. Provide roof walkways with nonslip surfaces on access routes over roofs to mechanical equipment requiring recurrent maintenance. If the stair (or fixed ladder) is exterior to the building, provide means to prohibit unauthorized access to roof.

Design low slope roof systems in accordance with the recommendations of the National Roofing Contractors Association (NRCA) Roofing and Waterproofing Manual and this manual. Acceptable low slope roof systems include but are not limited to the following roofing membranes with roof insulation:

- Bituminous built-up roofing systems
- Modified bituminous roofing systems
- Single-ply sheet roofing systems
- Fluid-applied roofing systems

Design low-slope roof systems with a positive slope a minimum of 1:50 (0.25 inch per foot) up to a maximum of 1:12 (1.0 inch per foot) to drains. Use tapered insulation, sloped structural systems, or level structural system with sloped fill to achieve the required slope.

**F. Skylights**

**EDITING NOTE: Select glazing material, or allow Offeror option.**

When provided, skylights shall be self-supporting, aluminum framed style with fixed glazing. Lessor shall design, engineer, fabricate, and install skylights to meet building code requirements and as follows:

- Design for uniform live load of not less than 30 psf [1.44 kPa].

- Design for a concentrated load of not less than 250 lbs [113.4 kg] applied to any framing member at a location that will produce the most severe stress or deflection.
- A one-third increase in the allowable stress for wind is acceptable where permitted by code but not in combination with any reduction applied to combined loads.
- Assume that compression flanges of flexural members receive effective lateral bracing only from anchors to the building structure and horizontal glazing bars or interior trim in contact on at least 50% of the member's total length.

Provide for expansion and contraction of metal skylight components resulting from an ambient temperature differential of not less than 120 °F [49 °C].

**6.3 EQUIPMENT**

**EDITING NOTE: Close coordination is required between the following paragraphs, Schedule B equipment list, and the Conceptual Drawings to be included in the SFO.**

**6.3.1 GENERAL**

PART III of this Solicitation (Schedule B) lists special equipment items to be furnished by either the Lessor or VA for installation in the Outpatient Clinic. As part of the rental consideration, the Offeror must include supporting construction, HVAC systems, utilities, and electrical distribution systems for both Offeror-furnished equipment and VA-furnished equipment to be installed in the Outpatient Clinic.

Offeror shall include provisions for necessary support and attachment of equipment items including, but not limited to, structural reinforcement of wall, floor or roof construction, and blocking or backing in walls and ceilings.

Offeror shall provide HVAC systems necessary to supply and exhaust the clinical spaces, laboratories, and other areas that contain special equipment, including provisions for supply or exhaust connections directly to special equipment items when required for installation and/or operation of the equipment, as part of the rental consideration.

Offeror shall provide building equipment and utility systems including but not limited to piping, water treatment equipment, sanitary or laboratory waste systems, medical or laboratory gas, compressed air, and vacuum systems as required for the installation and operation of the special equipment items as part of the rental consideration.

Offeror shall provide electrical service necessary for special equipment items, including service from emergency source for designated items or locations, as part of the rental consideration.

The prices and costs relating to Schedule B Special Requirement items shall include only the direct installation of equipment to support and distribution systems already included in the basic rent. Therefore, no additional costs relating to the distribution of utilities or supporting construction may be ascribed to the special equipment costs in Schedule B.

Items not listed in Schedule B are to be provided by the Lessor as part of the rental consideration.

**6.3.2 LESSOR FURNISHED SPECIAL EQUIPMENT**

The Offeror shall submit lump-sum pricing for the purchase and installation of special equipment items specified in Schedule B for laboratory and clinic areas. The price for each item in Schedule B shall include only the direct costs of obtaining and installing the item.

Special equipment items are listed by room type for each functional area within the Outpatient Clinic.

Special systems and equipment (including special electronic safety and security systems) applicable to the entire clinic are listed separately in Schedule B.

All property placed in, upon, or attached to the premises to be leased, and for which the Government pays by means of lump-sum, shall be and remain the property of the Government, and may be removed or otherwise disposed of by the Government.

**6.3.3 PROVISIONS FOR VA-FURNISHED/VA-INSTALLED EQUIPMENT**

**EDITING NOTE: Include the following if required by project program.**

As part of the rental consideration, the Offeror shall include supporting construction, HVAC systems, utilities, and electrical distribution as required for VA-furnished and VA-installed equipment to be installed in the Outpatient Clinic.

**A. VA-Furnished/Lessor Installed Equipment**

**EDITING NOTE: Include the following if Lessor installation of VA-furnished equipment will be required.**

Equipment may include items that are furnished by VA but installed by the Lessor. As part of the rental consideration, the Offeror shall include supporting construction, HVAC systems, utilities, and electrical distribution as required for VA-furnished equipment to be installed by the Lessor.

For equipment designated as installed by the Lessor, the Offeror shall also include installation as part of the rental consideration. Installation shall be defined to include all labor, tools, equipment, and incidental parts (including, but not limited to, screws or bolts for anchoring equipment to substrates, pipe fittings or unions, solder, Teflon tape, pipe joint compound, wire

nuts or electrical connectors, electrical wire, etc.) necessary for the equipment to be placed in its final location and to be completely functional.

- Include activities (nodes) in the network analysis schedule for installation by Lessor of VA-furnished equipment.
- Advise Contracting Officer of date(s) work will be ready for installation of equipment.
- Accept delivery of VA-furnished equipment on established dates.
- Jointly with Contracting Officer, inspect the equipment upon delivery to check for damage and confirm quantities.
- Once VA-furnished equipment is accepted by Lessor, the Lessor shall be responsible for protecting and storing the equipment.
- Provide any additional transportation to move equipment to final location.
- Uncrate, assemble, and install equipment.

Demonstrate proper operation of equipment to the Contracting Officer.

**6.4 MECHANICAL**

**6.4.1 INTRODUCTION**

**A. General**

The Offeror and the Project Design Engineer (henceforth known as the Engineer) shall use the contents of this document to design, install, test, adjust, balance, and commission the HVAC systems in a trouble-free working manner to provide comfort and safety to the veterans, staff, and visitors. The systems shall operate within the specified parameters.

**B. Equipment Location**

Equipment (examples: Air-Handling Units, Cooling Towers, Chillers, DX Condensing Units, and Fans) can be located on the roof if permitted by the local authorities. Provide supports, bracings, and other mounting devices to withstand wind forces as required by the local authorities. If there are no local codes, use wind forces indicated in American Society of Civil Engineers (ASCE) 7-98 or later version if available. For the seismic zones, the design of the bracing and supports shall be certified by a registered professional structural engineer. See Paragraph 6.2.6E for additional safety and access requirements.

**6.4.2 MANDATORY PROVISIONS**

See Paragraph 4.1 CODES and 4.2.1 VA ADOPTED CODES, STANDARDS, AND EXECUTIVE ORDERS.

**6.4.3 APPLICABLE CODES AND CRITERIA**

See Paragraph 4.1 CODES.

**6.4.4 HVAC DESIGN CALCULATIONS**

The HVAC design calculations shall be based on the following parameters:

**A. Outdoor Design Conditions**

Reference: Latest Edition of ASHRAE Handbook of Fundamentals.

(1) *Cooling Mode – Air Handling Unit (Minimum Outdoor Air)*  
1%, Monthly Design Dry bulb and Mean Coincident Wet bulb Temperatures.

(2) *Cooling Mode – Air Handling Unit (100% Outdoor Air):*  
1%, Monthly Design Wet bulb and Mean Coincident Dry bulb Temperatures.

(3) *Heating Mode*  
99%, Annual Design Dry bulb Temperature.

(4) *Cooling Tower Selection*  
1%, Monthly Design Wet bulb Temperature.

**B. Indoor Design Conditions**

(1) *Health Care Functions – all spaces shall have 20%-60% Relative Humidity.*

- Surgery and Post Anesthesia Recovery Areas
- Radiology - 70 °F
- Diagnostic and Treatment
- Central Medical and Surgical Supply (SPS) - 10 ACH/hr @ 20%-55% Relative Humidity
- Pharmacy – 70-75 °F @ 30%-60% Relative Humidity
- Sterile Storage - 72 °F

**Reference:** Latest Edition of ASHRAE Standard 170 (Ventilation of Health Care Facilities) for conditions not listed here.

Base the design on the following parameters listed for each unique specialty function:

- Inside Design Temperature (Dry bulb)
- Inside Design Humidity (Percentage Relative Humidity)
- Pressure Relationship to Adjacent Areas (Measured as Volumetric Air Difference)
- Minimum Total and Outdoor Air Changes per Hour
- Return Air or Exhaust to Outdoors

(2) *Support Functions*

- Offices
- Classrooms
- Conference Rooms
- Entrance Lobby
- Waiting Area
- Lounge
- Circulation Spaces



- 70 °F @ 30% Relative Humidity (Heating Mode)
- 75 °F @ 50% Relative Humidity (Cooling Mode)
- (RH in cooling mode is uncontrolled)

(3) *Food Service*

- Kitchen
- 70 °F to 74 °F (Heating Mode)
- 82 °F to 84 °F (Cooling Mode)
- Dining Areas
- 70 °F @ 30% Relative Humidity (Heating Mode)
- 75 °F @ 50% Relative Humidity (Cooling Mode)
- (RH in cooling mode is uncontrolled)

(4) *Miscellaneous Spaces*

See Paragraph 6.5 for specific applications.

(5) *Unoccupied Mode*

Non-sensitive areas shall be provided with a night setback, 55 to 88 F.

**C. Heating and Cooling Capacities**

(1) *General*

Using the methodology given in the latest edition of ASHRAE Handbook of Fundamentals, the Engineer shall provide computerized calculations showing computation of the cooling and heating capacities of the occupied spaces. The Engineer shall coordinate with the project-specific ancillaries – Latest Edition of ASHRAE Handbook of Applications (Health Care Facilities) and obtain such data as equipment load, exhaust air volume, pressurization requirements, and the required hours of the system operation per day to establish the cooling and heating capacities and system zoning.

(2) *Calculation Details*

The computerized calculations shall show such entities as:

- Room-By-Room Peak Cooling and Heating Loads
- Room-By-Room Air Balance Sheets, showing supply, return, exhaust, make-up, and relief air volumes
- Zone cooling and heating loads (a zone is defined as a central cooling and heating apparatus serving a group of rooms)
- Psychometric Analysis

(3) *System Losses*

The calculations shall include minimum 12% to the calculated load to account for:

- Fan Motor Heat
- Duct Heat Pick-Up
- Duct Leakage
- Assumed Safety Factor

- Reference: ASHRAE Handbook of Applications

**6.4.5 HVAC SYSTEM SELECTION CRITERIA – AIR SIDE**

**A. General**

Selection of the airside of the HVAC systems shall be based on the following:

- All-Air Systems
- Fan Coil Units
- Closed-Loop, Ground Source Heat Pumps
- Use of PTAC (Packaged Terminal Air Conditioners) and Terminal Heat Pumps is NOT permitted

**6.4.6 ALL-AIR SYSTEMS**

**A. General**

Provide all-air system, where the space criteria require:

- Minimum Fixed Air Changes per Hour
- 100% Exhaust to Outdoors
- Positive (+) or Negative (-) Pressure Relationship with Adjoining Spaces

The AHU shall be:

- ARI Certified
- Factory-Fabricated and Tested
- Modular Design with Solid Double-Wall Construction

Provide IAQ (Indoor Air Quality), double-slopping drain pan to ensure immediate removal of condensate. Provide a variable air volume system (VAV), where variation in air volume is permitted.

**B. Zoning**

Provide multiple air-handling units to ensure flexibility and energy efficiency. Capacity of a single air-handling unit shall not exceed 50,000 CFM. Provide dedicated air-handling units for spaces, such as:

- Emergency Care Unit
- Surgery and Post Anesthesia Recovery Areas
- Supply Process and Distribution (SPD) also referred to as Central Medical and Surgical Supply
- Cafeteria and Kitchen
- Entrance Lobby, Admission, and Waiting
- Ancillaries (as defined in ASHRAE Application Handbook – Health Care Facilities)

The above functions and activities shall vary with the size and space program of the OPC (Outpatient Clinic).

**C. AHU Components and Specifications**

*(1) General*

All components may not be required at each location and for each application.

*(2) Filtration*

The following filtration requirements shall apply:

- Pre-filters = 2-inch thick disposable (MERV 8)
- After-Filters = 12-inch thick disposable (MERV 14)
- Locate pre and after filters back-to-back, on the upstream side of the supply air fan.
- Provide HEPA filters (MERV 17) as the terminal final filters for Pharmacy Compounding

Contaminated exhaust of the special systems serving hoods or biological safety cabinets or protective environment rooms (e.g., TB Isolation Rooms) shall pass through the HEPA filters (MERV 17) equipped with pre-filters (MERV 8).

*(3) Humidification*

Humidification shall be provided to ensure a minimum of 30% RH. Where the campus steam is available, use an unfired steam-to-steam generator to produce low-pressure clean steam for serving the unit-mounted or main supply air duct-mounted steam humidifiers. Use RO (Reverse Osmosis) water to produce clean steam. Provide a gas-fired, stand-alone steam generator for the steam humidifier in the absence of the campus steam. Use of the electric, stand-alone steam generator should be considered as a last option.

*(4) Blenders*

Include blenders where blending of cold air and return would be helpful in preventing nuisance tripping activated by the Freeze stat.

**D. Air Terminal Units**

Provide pressure-independent, DDC-controlled, variable air volume (VAV) and constant volume (CV) terminal units. Provide integral reheat coils for the terminal units serving perimeter and roof-exposed spaces. Full shutdown of the interior spaces is permitted provided provision is made in the design sequence to prevent overcooling. Provide modulating control with hot water as the heating medium. Provide SCR control where electric coils are used for reheat. Provide capability to adjust the air volume between the high and low limits either locally or by the DDC controls. Provide acoustic internal lining for the terminal units.

**Exception:** Terminal units serving Surgery shall be constructed from stainless steel and shall be fabricated without acoustic lining.

Capacity of a single terminal unit shall not exceed 1,500 CFM [708 L/s].

**Exception:** Terminal unit serving the Operating Room can be larger than 1,500 CFM [708 L/s], as required to meet the air changes and cooling load requirements.

**E. Room Temperature Control**

*(1) General*

A space is defined as individually-controlled when it is equipped with a dedicated air terminal unit controlled by a dedicated room temperature sensor. The temperature sensor shall be wall-mounted with adjustable setpoint.

*(2) Individual Room Temperature Control*

Provide individual room temperature control for the following spaces:

- Occupied Corner Spaces with two or more exposed perimeter walls
- Spaces listed below (Interior or Perimeter)
  - Conference Room
  - Laboratory
  - Special Procedure Room
  - Minor Operating Room
  - Diagnostic and Treatment Room
  - Classroom
  - Entrance Lobby
  - Lounge
  - Dining Room
  - Kitchen
  - Sterilizer Equipment Room
  - Clean Preparation and Storage Room
  - Soiled or Decontamination Room
  - Telecommunications and Special Systems Rooms (control shall be installed within TR side of space where the TR and SSR are combined into one space)

*(3) Zone Temperature Control – Perimeter Spaces*

A single terminal box can serve as many as three perimeter spaces if these spaces are located on the same exposure and have identical load characteristics, such as offices or examination rooms.

*(4) Zone Temperature Control – Interior Spaces*

A single terminal box can serve as many as four interior spaces if these spaces have identical load characteristics, such as offices or examination rooms.

*(5) Temperature Control – Interior and Perimeter Spaces*

A single terminal unit cannot serve perimeter and interior spaces, including circulation spaces.

*(6) Temperature Control – Open Spaces*

Open spaces with exposed perimeter and interior spaces shall be divided into two sub-zones, perimeter and interior. Each sub-zone shall be served by a dedicated air terminal unit. Open spaces are defined as the spaces without floor to ceiling partitions.

**F. Air Distribution Arrangement**

Provide fully ducted supply, return, and exhaust air systems between the fans and inlets/outlets. Use of partial or common ducted return air arrangement is not acceptable. To avoid contamination and other shortcomings cited below, do not use ceiling space between the structural ceiling and suspended ceiling space as the supply or return air plenum.

In the ASHRAE Application Handbook (2007 Edition), drawbacks of plenum return system are cited as reproduced below:

"Suspended ceiling return air plenums eliminate sheet metal return air ductwork to reduce floor-to-floor height requirements. However, suspended ceiling plenums may increase the difficulty of proper air balancing throughout the building. Problems often connected with suspended ceiling return plenums are as follows:

- Air leakage throughout cracks, with resulting smudges.
- Tendency of return air openings nearest to a shaft opening or collector duct to pull too much air, thus creating uneven air motion and possible noise.
- Noise transmission between office spaces."

**G. AHU Controls**

*(1) General*

Provide a fully functional automatic control system to ensure comfort and energy efficiency from full load to part load conditions, with integral safety features to protect the occupants and equipment.

*(2) System Components and Minimum Sequences*

Provide motorized control valves, automatic dampers, airflow measuring devices, a static pressure sensor, chilled-water flow meters, temperature, pressure, and humidity sensors, humidifiers, smoke detectors and smoke dampers, as required, to address such sequences as:

- Supply Air Temperature Control
- Fan Speed Control
- Provision of Minimum Outside Air from Full Load to Part Load
- System Start-Up
- Morning Warm-Up and Night Setback Cycles
- Smoke Detection
- Alarms

**6.4.7 FAN COIL UNITS**

**A. General**

Provide a 4-pipe fan coil unit system for spaces not required to be in compliance with the criteria cited in Paragraph 6.4.6A above. Cooling only fan coil units are permitted, where year-round cooling is required for applications, such as elevator machine room, voice room, and computer room. Provide at least one fan coil unit for each room. A single fan coil unit cannot serve two or more rooms by ducted supply air takeoffs. Use of a 2-pipe fan coil unit system, with seasonal changeover, is not permitted.

**B. Minimum OA – Ventilation**

Do not admit raw minimum outside air (for ventilation) from the exterior wall vents. Provide a dedicated, central air-handling unit, complete with air distribution ductwork and outlets, to admit conditioned and filtered ventilation air directly in the occupied spaces and NOT via mixing boxes. Components of the central ventilation units shall be similar to the all-air system.

**C. Fan Coil Units – Type**

Fan coil units shall be one of the following types:

- Vertical Floor Mounted
- Horizontal Recessed
- Horizontal Concealed

**D. Fan Coil Units Controls**

Provide modulating controls for the cooling and heating coils. Provide a dead-band between the cooling and heating modes to avoid simultaneous activation of cooling and heating systems.

**6.4.8 CLOSED-LOOP – GROUND SOURCE HEAT PUMPS (GSHP)**

**A. General**

Evaluate and include the closed-loop heat pump system in the design where land area is available to install the outside underground loop. Heat pumps can be used where an all-air system is not feasible.

**B. Closed-Loop System Selection**

*(1) GSHP Type*

The ground source heat exchangers are installed in horizontal or vertical configuration.

The vertical heat exchanger is commonly used, as it has lesser land requirement compared to the horizontal type.

*(2) Test Bore*

Sample boring or test bore is highly recommended to estimate approximate depth of the bore and soil condition, i.e., thermal properties. Test bore data shall enable the designer to optimize the loop design and eliminate assumptions from the design process.

The test bore can be used as a permanent ground heat exchanger.

*(3) Commonly Used Design Parameters*

The commonly used parameters are:

- Bore Diameter = 4 to 6 inches [101 to 152 mm]
- Bore Placing = 20 to 30 feet [6 to 9 m]
- Pipe Diameter = 1 inch up to approximately 300 feet [91 m]
- 1-1/4 inch up to approximately 500 feet [152 m]
- 1-1/2 inch for depths greater than 500 feet [152 m]
- Piping Material: HDPE (High-Density Propylene) – thermally fused

*(4) Loop Types*

Select the loop design and configuration based on the type of buildings. Evaluate and include any one of the following three loops:

- Simple unitary loop

- Sub-central
- Central

The designer may select any one or combination of the above loops.

**C. Heat Pumps**

Use water-to-air heat pumps with differing configurations to match the applications.  
Examples:

- Vertical (up-flow or down-flow)
- Horizontal
- Classroom
- Console

**D. Minimum Outdoor Air – Ventilation**

Provide a dedicated, central air-handling unit with a heat recovery system for colder climate where outdoor design temperature at 99% is 41°F [5°C] or lower.

**6.4.9 REFRIGERATION SYSTEMS – CHILLED WATER AND DIRECT-EXPANSION (DX) SYSTEMS**

- Provide ARI certified, air-cooled or water-cooled refrigeration units.
- Use EPA approved refrigerants (HFC-134a, HFC-410a, or HCFC-123).
- Use of HCFC-22 refrigerant is not permitted.

Provide multiple units (minimum two) to ensure flexibility and efficient part load operation. Use of reciprocating compressors is NOT permitted. Equipment efficiencies shall be in compliance with the DOE, FEMP program.

Redundancy of N+1 is not a requirement of this lease.

**6.4.10 CHILLED WATER SYSTEMS**

**A. General**

Capacity of a single air-cooled chiller shall not exceed 200 tons. Capacity of a single water-cooled chiller (Centrifugal or Rotary Screw) shall not exceed 1,250 tons. Provide multiple chillers (at least two) to ensure reliability and efficient part load operation. A chilled water system shall be provided for all 100% OSA units.

**B. Chiller Controls**

Each chiller shall be equipped with a factory-installed and tested microprocessor for the safety and operating controls. The microprocessor shall be able to interface with the building DDC (Direct Digital Controls) controls with a BACNET open protocol arrangement.

**C. Chilled Water Piping/Pumping System**

Provide a fully functional chilled-water piping and pumping system complete with accessories and devices, such as variable-speed drives, flowmeter, and temperature and pressure sensors. Selection of the piping and pumping arrangement shall be project-specific. Provide

variable flow chilled-water pumping (variable primary or primary-secondary) system to ensure energy efficient operation from full load to part load conditions.

**D. Cooling Tower**

*(1) General*

Provide CTI-certified, corrosion-resistant, gravity-flow cooling tower in induced-draft configuration to cool the condenser water. The tower shall be in compliance with OSHA safety requirements and Physical Security provisions.

*(2) Cooling Tower Location*

Locate cooling tower to ensure that:

- Tower installation and noise is not objectionable and in compliance with the local ordinance. Provide low noise level fans and attenuators as required to meet the noise levels.
- Discharge from the cooling tower does not find its way into outside air intakes and open windows of the adjoining spaces to create a potential for the Legionellosis disease.

*(3) Tower Accessories and Controls*

The cooling tower installation shall be accessible and complete with a walking platform and a ladder safety cage.

*(4) Water Treatment*

Provide a complete and fully functional water treatment system using non-toxic chemicals approved by EPA and local authorities.

**Redundancy of N+1 is not a requirement of this lease.**

**6.4.11 DIRECT-EXPANSION (DX) SYSTEMS**

Use of DX systems, packaged or split-system, is permitted, provided the occupants comfort is not compromised due to lack dehumidification at part load conditions. The minimum size unit is 20 tons. The Engineer shall address this issue by including the required control strategy and system configuration, such as:

- Multiple Compressors (single compressor units are NOT acceptable)
- Low-Ambient Operation

**6.4.12 HEATING SYSTEMS**

**A. General**

Provide heating hot water or steam boilers to meet the space heating and domestic hot water heating demand. Provide at least two boilers each of 50% capacity to ensure flexibility. Provide 100% back-up for the circulating pumps.

**B. Selection Criteria**

Selection of steam and/or hot water boilers shall be based on the following:



- Total heating load
- Total steam demand for winter humidification, sterilizers, kitchen equipment
- Domestic hot water load
- Location of heating equipment according to the OPC

**C. Boiler Fuel Selection and Choice**

- Use natural gas where uninterrupted supply is available.

**D. Hot Water Heating Piping/Pumping System**

- Provide a fully functional heating system complete with circulating pumps and insulated piping.
- Provide two-way modulating control valves to vary flow at part-load conditions.
- Provide variable speed drives for the hot water circulating pumps for sizes larger than 5.0 HP.

**E. Steam Heating System**

The steam system shall generate heating hot water by using a steam-to-hot water heat exchanger and steam accessories, such as condensate return system comprising of condensate return pump and flash tank, where required. Provide boiler water treatment and steam flow meter, interfacing with the central metering system.

**F. Miscellaneous Terminal Heating Devices**

Provide thermostatically-controlled terminal heating devices, such as unit heaters, cabinet heaters, convectors, and finned tube radiation to heat the miscellaneous spaces, such as:

- Vestibules
- Exterior stairs
- Exit doors leading to outdoors
- Mechanical Equipment Rooms (MERs)
- Toilets with exposed perimeter

**6.4.13 PIPING SYSTEMS – BASIC REQUIREMENTS**

**A. Pipe Material**

Steel, ASTM A53, Grade B, seamless or ERW, schedule 40 for condenser water, chilled-water, hot water, and vent pipes.

**Copper Water Tube (Option):** ASTM B88, Type K or L, hard drawn. Soft drawn tubing, ¾-inch and larger may be used for run outs to for fan coil units.

Use pre-fabricated, insulated, chilled water piping for the underground applications or in the tunnels, or pipe basements or tunnels.

**Steam Piping:** Piping for condenser water, chilled-water, hot water, and vent pipes shall be steel, ASTM A53, Grade B, seamless or ERW, Schedule 40.

**Steam Condensate Piping:** (a) Concealed above ceiling, in wall, or chase: Copper Water Tube ASTM B88, Type K, hard drawn (b) All Other Locations: Copper Water Tube ASTM B88,

Type K, hard drawn or steel, ASTM A53, Grade B, Seamless or ERW, or A106 Grade B Seamless, Schedule 80.

**Chemical Feed Water for Condenser Water Treatment:** Chlorinated polyvinyl chloride (CPVC), Schedule 80.

**B. Minimum Pipe Size**

Minimum pipe size shall not be less than 3/4-inch [19 mm].

**C. Minimum Water Flow**

Minimum water flow shall not be less than 0.5 GPM [1.89 L/m].

**D. Pipe Sizing**

Select pipe sizes based on the ASHRAE recommendations and the need to provide an energy-efficient design.

**E. Piping Connections**

*(1) Shutoff Valves*

Provide shutoff valves to isolate each piece of equipment, such as chillers, boilers, cooling tower, pumps, coils, air terminal units, and terminal heating units requiring isolation, service, and/or replacement.

Provide drain lines at low points and air vents at high points.

*(2) Strainers*

Provide in-line strainers to protect equipment, such as cooling and heating coils and control valves.

*(3) Check Valves*

Provide check valves on the pump discharge side with two pumps operating in parallel.

*(4) Flexible Connectors*

Provide flexible connectors at the pump inlet and outlet connections.

*(5) Filters*

Provide cartridge-type of filters for the closed-loop chilled water and hot water systems. Provide solid separators for cleaning condenser water.

*(6) Water Treatment – Closed-Loop Systems*

Provide chemical shot feeder for the closed-loop chilled water and hot water systems.

*(7) Piping Specialties*

Provide expansion tanks and air separators for the chilled water and hot water closed-loop systems.

*(8) Make-Up Water Connections*

Provide make-up water connections with reduced pressure backflow preventer for the expansion tanks.

(9) *Steam Trap*

Provide float and thermostatic trap assembly for the equipment served by a modulating control valve. Provide at least 12-inch static head to facilitate condensate flow by gravity.

(10) *Vent Lines*

Provide vent lines for the steam condensate return pump and pressure-reducing valve station to discharge outdoors.

(11) *Instruments*

Provide pressure gauges and thermometers at the pumps and coils and at the equipment requiring measurements of the pressures and temperatures.

(12) *Steam Gun*

Provide a steam gun set comprising of steam, water, and detergent for cleaning of carts in the trash rooms, kitchen, and sterilizer room.

**6.4.14 AIR DISTRIBUTION SYSTEM**

**A. Compliance**

All air distribution systems (supply, return, exhaust, relief, and outdoor air) shall be fabricated in accordance with SMACNA Standards.

**B. Duct Material**

Ductwork, casings, and accessories (e.g., volume dampers, turning vanes, elbows) shall be fabricated from galvanized sheet steel, ASTM A527, coating G90. As an optional material, aluminum sheets complying with ASTM B209, alloy 1100, 3003, 5052 can be used.

Use 18-gauge welded stainless steel ducts with liquid-tight continuous welds for all seams and joints for the "wet exhaust" systems. Wet exhaust systems are meant for dishwashers, cage washers, cart washers, scullery hoods, steam sterilizers, and ethylene oxide sterilizers.

For special exhaust systems serving fume hoods and biological safety cabinets, use welded stainless steel (ASTM A167, Class 302 or 304).

Use duct material in compliance with NFPA 96 and UL labeled for grease exhaust.

Use of fiberglass ducts, concrete ducts, and underground ducts is not permitted.

**C. Design Parameters**

(1) *Minimum Duct Sizes*

- 8 inches x 6 inches for rectangular ducts
- 6 inches for round ducts

(2) *Recommended Duct Velocities*

Select the duct velocities and limiting static pressure drops in accordance with ASHRAE and SMACNA requirements. The selection shall address such issues as the noise levels, energy conservation, and the prescribed limits on the total fan static pressure as specified in ASHRAE 90.1.

**D. Ductwork Accessories**

Provide a manual volume damper at each low-pressure branch duct takeoff. Show all fire and smoke dampers and smoke detectors on the floor plans.

**E. Air Outlets**

Provide supply, return, and exhaust air outlets and inlets to ensure uniform distribution of air and avoid spot cooling and dead-end spaces without circulation. The air outlets shall not result in a drafty and noisy environment. Capacity of a single air outlet shall be based on and limited to meet the noise levels and uniform air distribution.

**6.4.15 INSULATION**

Provide duct and piping insulation in accordance with the ASHRAE Standard 90.1. External and internal insulation for the equipment shall be in compliance with the manufacturer's standard practice.

**6.4.16 APPLICATIONS**

**EDITING NOTE: Add/remove all applications as appropriate to this project.**

**A. Air-Conditioning Systems – Miscellaneous Areas**

Provide 24/7 conditioning for the critical spaces identified below:

- **Elevator Machine Room:** inside design temperature and the range shall be based on the manufacturer's recommendations
- **Telecommunications & Special Systems Room/s:** refer to 6.8.2.
- **Canteen/Retail store:** refer to 6.4.4 for indoor design conditions.
- **Warehouse:** refer to 6.4.4 for indoor design conditions.
- **Medication Rooms:** refer to 6.4.4 for indoor design conditions.
- **Sterile Storage Rooms:** refer to 6.4.4 for indoor design conditions.
- **Pharmacy:** refer to 6.4.4 for indoor design conditions.
- **Central Medical and Surgical Supply (SPS):** refer to 6.4.4 for indoor design conditions.

*(1) General*

Obtain project-specific scope of work and provide a HVAC system to provide 24/7 conditioning to the spaces listed above, as the mechanical system requirements shall depend upon the actual make and model number. HVAC system may serve multiple spaces can be connected to any other system without compromising the design parameters.

*(2) Dedicated AC Systems*

Provide dedicated air handling units for the spaces identified below:

- Laboratory – 100% outside air.
- Main Computer Room – 100% redundancy.
- Main Entrance Lobby
- Pharmacy Service
- Central Medical and Surgical Supply (SPS)

Closed-loop chilled water unit may be required for the process cooling. Refer also to 6.8.2 Telecommunications and Special Systems Room/s.

**B. Storage Rooms and Flammable and Combustible Storage Room**

Provide dedicated exhaust ventilation system to maintain the space under negative air balance. Select fan, motor, and ductwork to handle the stored chemicals. Ensure compliance with NFPA 30. Exhaust fan shall run continuously and shall be served from the emergency power circuit.

**C. Laboratories**

Design HVAC systems to comply with NFPA 45 with 100% exhaust and negative air balance.

Provide dedicated exhaust systems for the fume hoods and Biological Safety Cabinets (BSC). Ductwork, fans, and motors shall be suitable to handle the chemicals. Exhaust from the hoods and BSC shall be discharged from the roof at appropriate velocity to ensure that contaminated air does not enter into outside air intakes and open windows.

**D. Pump Rooms**

Provide heating and ventilation as required to be in compliance with NFPA 20. Provide dedicated and controlled equipment.

**E. Enclosed Entrances**

Refer to Paragraph 6.2.3 for the enclosed entrances. Provide independent heating device to activate and maintain 60 °F [16 °C] when the entrance doors are closed in heating season. Use devices such as overhead heating lamps.

**F. Radiology**

*(1) General*

Penetration of lead lining by the HVAC ducts shall be coordinated with the equipment manufacturers.

*(2) Inside Design Conditions*

Use ASHRAE Standard 170.

*(3) Dedicated AC Unit*

Evaluate the need for a dedicated AC unit to meet the cooling demand of the equipment load due to computers and other equipment. Coordinate the heat dissipation with the equipment manufacturer.

*(4) Air Distribution*

Coordinate air distribution with the raised floor where installed in specific rooms. Ensure supply of minimum ventilation room for the spaces cooled by 100% re-circulating AC unit. Maintain room air balance as recommended by ASHRAE Handbook and/or Standard 170.

**G. General Exhaust Systems**

Ventilate spaces, such as toilets, janitor's closet, soiled utility rooms, and bathrooms, at the rate specified in ASHRAE Standard 62.1. Maintain negative air balance in the spaces.

**H. Wet Exhaust System**

Provide dedicated wet exhaust system for washers in the kitchen and SPD (Supply Processing and Distribution) areas. Provide welded stainless steel ductwork. Coordinate exhaust air volume with the equipment data. Maintain negative air balance in the spaces.

**I. Vestibules**

Provide a dedicated terminal heating unit to heat the vestibule. Ventilate vestibule by maintaining positive air balance, i.e., supplying air without taking return air back.

**J. External (Perimeter Stairs)**

Provide a thermostatically-controlled heating terminal unit to heat the stairs leading to outdoors.

**K. General Waiting Areas (Admission and Radiology)**

Per CDC and ASHRAE requirements, all waiting areas shall be maintained under negative air balance and exhausted outdoors at the rate of 12 air changes per hour. General exhaust system can be used to ventilate these spaces.

**6.5 FIRE PROTECTION**

**6.5.1 FIRE EXTINGUISHERS**

Portable fire extinguishers recessed in cabinets shall be provided, inspected, and maintained by the Lessor in accordance with National Fire Protection Association (NFPA) 10, Standard for Portable Fire Extinguishers.

Recessed cabinets shall be provided in occupied areas. Size fire extinguisher cabinets to accommodate a 2.5 gallon [9.5 liters] pressurized water extinguisher. Recessed cabinets shall be conspicuously marked.

Locate additional fire extinguisher cabinets in the elevator machine rooms.

**6.5.2 FIXED FIRE EXTINGUISHING SYSTEMS**

Provide fixed fire extinguishing systems in accordance with NFPA 96 for cooking operations producing grease laden vapors or smoke.

Fixed fire extinguishing systems shall be wet chemical and shall comply with UL300 in accordance with NFPA 17A. Activation of the fixed fire extinguishing system shall shut down the power/fuel source to the cooking equipment and shall be connected to the fire alarm system.

**6.5.3 AUTOMATIC SPRINKLER AND STANDPIPE SYSTEMS**

Automatic sprinkler systems shall be installed in the outpatient clinic building and any accessory buildings. Installation shall comply with NFPA 13. Sprinklers shall be installed throughout the building(s), including elevator machine rooms, walk-in freezers and cold rooms,

telecommunications rooms, radiology, loading docks, electrical rooms and closets, audiometric booths, vaults, and generator rooms.

Provide a standpipe system as required by locally adopted codes and standards, NFPA 45, NFPA 1, or NFPA 101.

**A. Design**

The design shall comply with the requirements of NFPA 13 and NFPA 14. The automatic sprinkler system shall be hydraulically designed by any design approach allowed by NFPA 13. A minimum safety factor of 10% shall be provided in the hydraulic calculations. Pipe schedule systems may be used for extension of existing pipe schedule systems where water supply is adequate. Sprinkler systems shall be designed based on available water supply without fire pump operating, where possible.

**B. Installation**

The installation shall comply with the requirements of NFPA 13 and NFPA 14. Sprinklers shall be provided throughout the building. Standpipes shall be Class I hose connections.

Where necessary, provide a fire pump to supplement the fire flow and pressure. The installation of the fire pump shall comply with the requirements of NFPA 20. The fire pump shall be an electric motor driven, horizontal split case centrifugal type. The fire pump shall be provided with both a test header and flowmeter. Relief valves, if provided, shall be recirculated back to the suction side of the pump. Jockey pumps shall be rated for no less than 60 GPM [3.79 L/s]. Fire pumps shall start automatically at 10 ppsi below the jockey pump start pressure. Fire pumps shall be manually shut down.

Design wet pipe sprinkler systems, unless installed in areas subject to freezing. Dry pendant or sidewall sprinklers are preferred in lieu of dry pipe or antifreeze systems. Propylene glycol shall be used should antifreeze systems need to be installed when permitted by local authorities. Do not use pre-action type systems.

Sprinkler densities shall comply with NFPA 13, except in rooms containing movable/mobile shelving (high density storage) where the density shall be Ordinary Hazard (Group 2).

Rooms containing bulk supply storage shall be classified as defined by NFPA 13. Do not use shelving which obstructs sprinkler water from penetrating down through racks.

Install quick response sprinklers (QRS) in all areas, except where specifically prohibited (e.g., high temperature areas as defined in NFPA 13, elevator shafts, or elevator machine rooms). On retrofit projects, replace existing standard sprinklers with QRS.

Install standard sprinklers with intermediate temperature rating 200 °F [93 °C] or higher in elevator shafts, elevator pits, and elevator machine rooms. Install sprinklers in elevator shafts and pits only where required by NFPA 13. (Comply with necessary power shutdown requirements.)

The installation of flow control (on/off) sprinkler heads is not permitted.

Provide non-ferrous piping for all areas within Magnetic Resonance Imaging (MRI) suites.

Coordinate with architectural, mechanical and electrical work and show smoke zone boundaries, hazard classification, density, and other special requirements on drawings.

Coordinate sprinkler zones with fire or smoke (compartments) and fire alarm evacuation zones. Provide a flow switch, isolation valve, tamper switch, and pressure gauge for each zone. Notification shall comply with NFPA 72.

Determine and identify on drawings the location of fire pump, risers, all valves, fire department connections, drains, and points of connection with underground fire service main.

**C. Commissioning**

For the leased facilities, commissioning of the fire protection systems shall be implemented to verify the intent of the design by inspecting and testing the systems.

**6.6 PLUMBING**

**6.6.1 GENERAL**

The Lessor and the Lessor’s Design Engineer (henceforth known as the A/E or Engineer) shall use the contents of this document to design, install, test, adjust, balance, and commission the Plumbing systems in a trouble-free working manner to provide comfort and safety to the veterans, staff, and visitors.

**6.6.2 MANDATORY PROVISIONS**

See Paragraphs 4.1 CODES and 4.2.1 VA ADOPTED CODES, STANDARDS, AND EXECUTIVE ORDERS.

**6.6.3 APPLICABLE CODES AND CRITERIA**

See Paragraph 4.1 CODES, for applicable codes and standards.

**6.6.4 PLUMBING DESIGN SCOPE**

The plumbing design scope includes the following systems, which are detailed following this list.

- A. Water Distribution System
- B. Potable Water Treatment Systems (includes softening, reverse osmosis, deionization, and reagent grade water production)
- C. Domestic Hot Water System, including Recirculation
- E. Sewer/Vent/Waste System inside buildings
- F. Roof Drainage System
- G. Sub Soil Drainage System
- H. Interior Fuel Gas System
- I. Medical Gas and Vacuum System
- J. Dental Gas and Oral Evacuation System



- K. Laboratory/Shop Compressed Air System
- L. Acid Waste and Vent System
- M. Seismic Restraint System
- N. *Legionella* Mitigation

**A. Water Distribution System**

Size the piping for the hot and cold water systems per criteria specified in the IPC including backflow preventers, water hammer arrestors, and trap primers. Minimum pipe size shall be 3/4".

Provide wall hydrants (a maximum of 200 feet [60.96 m] apart at the building exterior perimeter) at loading docks and at building entrances, with a minimum of one wall hydrant on each exterior wall.

Maintain a minimum pressure of 35 PSI [240 kPa] at the plumbing fixtures on the top floor. In minimum pressure calculations, use residual pressure at design flow. Monitor for diurnal pressure fluctuations experienced by the building water supply and modify starting pressures accordingly. Provide a pressure gauge on the top floor branch adjacent to the riser.

Where required, provide a domestic water booster system. Use a three-pump system with each pump handling half of the design flow rate. An inlet and discharge potable water bladder type buffer tank shall be provided to absorb pressure fluctuations and minimize pump cycling. Discharge pressure shall be controlled using variable frequency drives through a packaged booster pump controller. Provide spring loaded swing check valves on the pump discharge.

Provide a solenoid valve on the cold water supply to the dental Utility Junction Centers (UJC) with a control switch located in the reception area. A UJC is a grouping of specific utilities brought to a designated location in each dental operatory to provide convenient points of connection to the dental operating unit equipment.

The electrical supply shall be coordinated with the electrical engineer for all electronic faucets and flush valves, trap primers, solenoid valves, pumps, alarm panels, hot water heaters, and other appliances and equipment requiring electrical power.

**B. Potable and Special Water Treatment Systems**

Potable water provided to VA shall meet minimal EPA and/or state standards for contaminants. If potable water does not meet EPA and/or state standards, Lessor shall take action necessary to reduce contamination to acceptable levels. Lessor shall test potable water periodically to ensure that it continues to meet EPA and state standards.

Provide water treatment as required to meet EPA and/or state drinking water standards, and to meet special water use needs.

(1) *Water Softener*

Provide vertical, pressure type, sodium cycle water softeners from a single vendor. Regeneration shall occur no more than once per day. Provide bypass. A water softener system is required under the following conditions:

**Entire Clinic:** Provide 100% duplex softening equipment (with hard water bypass) when total hardness exceeds 170 ppm (mg/L) as CaCO<sub>3</sub>. Blend equipment effluent to a hardness of approximately 50 ppm [mg/L]. Provide a ventilated salt storage room to store a 30 day supply of salt.

**Pretreatment:** Provide 100% duplex softening equipment (with hard water bypass) for Reverse Osmosis and Hemodialysis water treatment packages.

**Boiler Feed-water Make-up Use:** Design duplex softeners, each furnishing 100% of the maximum flow rate, at an exchange capacity required for peak boiler feed-water make-up.

(2) *Reverse Osmosis*

Provide a stand-alone reverse osmosis system, comprised of a factory assembled package, complete with dual alternating carbon filters with automatic backwash, a 20 and 5 micron pre-filter, a reverse osmosis membrane, pressure pump, and all valves and controls necessary for complete automatic operation. All parts and components to be compatible with EPA drinking water standards, and the entire package shall be UL listed.

(3) *Deionization System*

As facility needs dictate, provide a three-bed deionizer (cation, anion, mixed bed) of the tank exchange type, providing de-ionized water to meet the requirements of the facility. Feedwater to the deionizer system shall be fed through a 5 micron filter, provided as a component of the deionization system. The system shall be factory assembled, full duplex, and designed for automatic production of water with a conductivity of less than 10 micro-ohms.

(4) *Reagent Grade System*

As facility needs dictate, provide a complete packaged reagent grade water system. Confirm if users require grade 1, 2, or 3 quality, and estimate consumption amounts. Evaluate if it is cost-effective to provide reagent grade water system, or to have the users purchase water from an ISO3696: 1987-listed firm.

**C. Domestic Hot Water System**

Domestic hot water system shall comply with pertinent sections of ASHRAE 90.1-2007 for water heating equipment efficiencies and pipe insulation.

Provide gas (or electric if gas not available) storage tank type water heater(s), sized per ASPE. Provide drain pan, pressure/temperature relief valve, flue, and combustion air per IPC and local codes.

**D. Sewer/Vent/Waste Systems Inside Building**

Design sewer/vent/waste systems in accordance with IPC and ASPE. "Sovent" combination waste and vent systems are not allowed.

Unless required by local codes, floor drains shall not be installed in private or individual toilet rooms with a single water closet. Provide floor drains with trap primers in public toilet rooms containing two or more water closets, or a combination of one or more water closets and one or more urinals. Floor drains are required in bathrooms with showers.

Provide cleanouts according to the IPC. Identify all cleanouts on plans and riser diagrams. Do not locate cleanouts above ceilings or crawl spaces, and provide additional cleanout at the "end of run" of all groups of fixtures. Wherever possible, extend cleanout to outside the building perimeter.

**E. Roof Drainage System**

Roof drains shall be sized per IPC with applicable local amendments. In locations where the ASHRAE winter 1% dry bulb temperature is below 32 °F [0 °C], insulate roof drain leaders located under the roof and above lay-in or hard ceilings. Coordinate connection of roof drainage piping to storm drain site piping. Point of connection of building roof drain piping to site piping is at 5'-0" outside the building perimeter.

**F. Sub-Soil Drainage Piping**

Sub-soil drainage piping for building structure is the responsibility of the site civil engineer. Pending selection of site and existing soil conditions, sub-soil drainage piping shall be provided, unless recommended otherwise within the geotechnical report.

**G. Interior Fuel Gas System**

Design in accordance with NFPA 54 or IFGC, as required and as modified by local codes.

Provide natural gas earthquake valve downstream of and adjacent to the main gas meter at all locations within a seismicity rating of moderate-high, high, or very high, as indicated within VA Seismic Design Requirements Publication No. H-18-8.

Provide solenoid valve in the natural gas supply link to the Dental Laboratory with an emergency shut-off manual valve for each area (accessible to the users) located at the exit door to the space.

**H. Medical Gas and Vacuum Systems**

Provide medical gas and vacuum wall connections at locations as dictated by the facility requirements, and design oxygen, medical air, vacuum, and other gas systems in accordance with NFPA 55, NFPA 99, as modified by local codes, and as specified in this document. Medical air and vacuum systems shall be isolated from Dental Compressed Air and Oral Evacuation systems. Provide combined zone valves (oxygen, medical air, and vacuum) in nurse station or other appropriate and coordinated area.

Oxygen and Medical Air systems shall be designed to deliver 50 PSI, with piping system not to exceed a 5 PSI loss from source to point of use. Minimum design flow rate for any pipe section is 7 SCFM. Medical air system compressor shall be of duplex design, 100% redundant with a single receiver.

Vacuum system shall be designed at 15 inches Hg, with piping system not to exceed 3 inches Hg pressure drop from source to point of use. Minimum design flow rate for any pipe section is 4.0 SCFM.

**Note:** Medical gas and vacuum systems as specified above are minimums. Systems may be considerably more complex based upon facility requirements.

**The Lessor shall be responsible for constructing and carrying the cost of the medical gas infrastructure as listed above. Upon space acceptance by VA, all cost associated with the medical gas infrastructure outlined above will be paid by the VA in a lump sum payment to the Lessor. Offerors shall list the lump sum cost associated with medical gas infrastructure on GSA Form 1364.**

**I. Dental Gas and Oral Evacuation Systems**

Systems provide dental gas and oral evacuation connections at locations dictated by the facility requirements, and design oxygen, compressed air, oral evacuation system and other gas systems in accordance with NFPA 55, NFPA 99, as modified by local codes and as specified in this document. Dental compressed air and oral evacuation systems shall be isolated from medical air and vacuum systems. Provide combined zone vales (oxygen and dental compressed air) in receptionist area or other appropriate and coordinated areas.

Oxygen system shall be designed to deliver 50 PSI, with piping system not to exceed a 5 PSI loss from source to point of use. Minimum design flow rate for any pipe section is 7 SCFM.

Dental compressed air system shall be designed to deliver the regulated 100 PSI, with piping system not to exceed 5 PSI loss from source to point of use. Minimum design flow rate for any pipe section is 7 SCFM. Dental compressed air system shall be duplex, with a single receiver.

The Dental Oral Evacuation System is comprised of central vacuum system providing suction to a Saliva Ejector (SE) and a High Volume Evacuator (HVE). The central vacuum system shall be designed to maintain a vacuum of 8" Hg, using an alternating duplex vacuum producer, each carrying 70% of the load. Provide with solids separator, and discharge exhaust pipe through roof of portion of building in which located. SE piping shall be provided in each operatory. Locate HVE system outlets in floor mounted UJC.

**The Lessor shall be responsible for constructing and carrying the cost of the dental gas infrastructure as listed above. Upon space acceptance by VA, all cost associated with the dental gas infrastructure outlined above will be paid by the VA in a lump sum payment to the Lessor. Offerors shall list the lump sum cost associated with dental gas infrastructure on Attachment #1 of GSA Form 1364A.**

**J. Laboratory/Shop Compressed Air Systems**

Provide simplex air compressor to serve equipment and a minimum of one outlet on each wall in shop areas. The shop compressed air system shall include intake silencer, filter, refrigerated dryer, and receiver. Interior outlets shall be no farther apart than 25 feet [7.62 meters].

**K. Acid Waste and Vent Systems**

Provide chemical-resistant pipe for all waste and vent piping serving laboratory fixtures and photographic developing equipment. When fusion-joined plastic piping systems are used, mechanical joints shall be installed at traps and trap arms for maintenance reasons. Chemical drainage shall pass through an acid-neutralizing tank before connecting to the building sanitary drainage system. Install chemical-resistant vent pipe independently through the roof.

**L. Seismic Restraint Systems**

Earthquake-resistive design for plumbing equipment and piping shall comply with the requirements of VA Seismic Design Requirements Publication No. H-18-8 and the International Building Code (IBC).

**Exceptions:** When allowed by local code, seismic restraint may be omitted for the following installations:

- Gas and medical air piping less than 1 inch [25 mm] inside diameter.
- Piping in boiler and mechanical equipment rooms less than 1¼ inch [32 mm].
- All other piping not including gas and medical air less than 2½ inch [64 mm].
- Equipment weighing less than 400 pounds [180 kg] support and attached directly on the floor.
- Equipment weighing less than 50 pounds [9 kg] suspended from the roof or floor or hung/supported from the wall.

**M. Legionella Mitigation**

There are currently no EPA enforceable regulations governing the levels of *Legionella* bacteria in potable water systems; however, EPA has issued a Maximum Contaminant Level Goal (MCLG) of 0 ppm [mg/L]. Municipal water supplies and wells can carry *Legionella*, so it is given that the bacteria will be introduced into the facility potable water system at some time. The challenge is to limit the amplification of the bacteria to less than lethal levels.

*Legionella* bacterial amplification occurs when bio-films exist in water storage tanks and dead-end piping legs which allow for growth sites, and when temperature and pH levels are optimum for growth. Infection can occur when patients inhale atomized droplets while showering, drinking or receiving respiratory treatment.

*(1) Piping Design*

Provide means to easily remove and disinfect all outlet devices such as showerheads and faucets, etc. Utilize self-draining showerheads.

Provide a ¾" ball valve at the end of each piping section as a means to drain heated (above 140 °F [60 °C]) flushing hot water that will be used for initial and supplemental disinfection. Ball valve shall be within 50 feet [15.24 meters] of a floor sink, floor drain, sink, or lavatory.

Mix hot/cold water as near the showerhead as possible.

Eliminate all dead legs in the piping system.

Design domestic water piping system to facilitate future installation of a copper-silver ion generator system.

*(2) Disinfection Methods*

Subsequent to piping disinfection required per IPC, and as part of the commissioning process, disinfect the potable water systems against *Legionella* by one of the following methods:

- **Thermal Eradication:** Flush 145°F water through all outlets for a period of at least 30 minutes.
- **Chlorine:** Flush free chlorine at a level of 2 parts per million (PPM) or greater for a period of at least 2 hours.

Further information can be found in ASHRAE paper CH-03-3-2.

**N. Plumbing System Commissioning**  
Refer to 4.8 SUSTAINABLE DESIGN AND ENERGY EFFICIENCY.

**6.6.5 PLUMBING FIXTURES, TRIM AND EQUIPMENT**

Provide plumbing fixtures, trim and equipment as required by the IPC.

**A. Plumbing Fixtures**

Water closets, urinals, sinks and lavatories shall be vitreous china or stainless steel. Bariatric water closets shall be rated at 1,000 pound [454 kg] capacity. Waterless urinals are not permitted. Service sinks (mop sink/basin) shall be floor-mounted cast terrazzo, (a combination of Portland cement and grey marble chips).

**B. Plumbing Trim**

Faucets and showerheads shall be of chromed brass, monel, or stainless steel; plastic trim is not permitted. Faucets shall be laminar flow; aerators are not permitted. Electronic hands-free controls shall be provided at all hand washing sinks and lavatories.

**C. Plumbing Equipment**

Provide wall-hung, self-contained, electric wheelchair accessible water cooler.

Hot water re-circulation pump shall be all bronze, with timer based controls.

**6.7 ELECTRICAL**

**6.7.1 GENERAL**

The Lessor shall provide all the necessary electrical facilities for the project. It is expected that electrical systems will meet their primary objective of providing appropriate and reliable interior and exterior electrical, lighting, and auxiliary systems and services necessary to the safety and comfort to the veterans, employees, and visitors. In addition, the systems shall be safe, easily accessible for repairs and maintenance, and energy-efficient.

**6.7.2 CALCULATIONS**

Prepare and submit calculations as required by the type of design work performed. Calculations shall justify lighting designs; size of each branch circuit and feeder conductor, overcurrent protective device, equipment bus, generator, transformer, etc., at all voltage levels; setting of each overcurrent protective device with adjustable characteristic; required

PPE to meet arc flash energy levels; etc. The Lessor shall submit the following calculations to VA: fault current calculations, protective device coordination study, arc flash calculations, load calculations, generator-set sizing calculations, voltage drop calculations, lightning protection system risk analysis, and lighting calculations.

**6.7.3 LIGHTING CALCULATIONS**

Perform all lighting calculations based on illumination criteria per the IESNA Lighting Handbook, latest edition. Calculations shall include room name, room number, fixture type chosen for the room, number and type of lamps to be used in the room, required illumination level, calculated illumination level, and all assumptions used.

Calculations for most interior spaces may be performed using the zonal cavity method. Perform and submit point-by-point calculations for areas of greater architectural or luminous sophistication. Calculations for exterior spaces, including parking structures, shall be point by point. Calculations shall demonstrate compliance with energy requirements per Paragraph 4.8 SUSTAINABLE DESIGN AND ENERGY EFFICIENCY.

**6.7.4 FIRE ALARM SYSTEMS**

Fire alarm systems shall be provided as required by NFPA 101 or the locally adopted codes.

The fire alarm system shall be designed to meet the requirements of NFPA 72 and the local codes.

Fire alarm should be digital voice (speaker) system per VA Fire Protection Design Manual.

Fire alarm systems shall not be combined with other systems such as building automation, energy management, security, etc.

Wiring for fire alarm systems shall be as follows: Initiating Device Circuits – Style B (Class B), Signaling Line Circuits – Style 4.0 (Class B), Notification Appliance Circuits – Style Y (Class B), and Communications between fire alarm control units – Style 7 (Class A). Where there are conflicts with local codes, the most stringent requirements shall be enforced.

Initiation devices shall be provided in accordance with NFPA 101, NFPA 72, NFPA 90A, and ASME 17.1 or ASME 17.3, as applicable.

Audible fire alarm notification appliances shall be provided in accordance with NFPA 72 and NFPA 101.

Visual fire alarm notification appliances shall be provided in mechanical rooms, public restrooms, public accessible areas such as corridors, auditoriums, cafeterias, assembly rooms, canteens, retail stores, and other publically accessible rooms of more than 750 square feet [228.6 square meters] of area.

Coordinate fire alarm zones with the location of smoke compartments and sprinkler zones.

The fire alarm system shall be monitored by a listed remote central station.

**6.7.5 RACEWAYS AND WIRING**

Install all wiring in raceways. All wiring shall be copper. All circuits and branch circuits shall have a separate equipment grounding conductor of appropriate size per the NEC. No more than 3 branch circuits are allowed to run in one homerun.

**6.7.6 LIGHTNING PROTECTION SYSTEM**

Perform risk analysis per NFPA 780, Annex L and provide a lightning protection system, where  $N_d > N_c$ . Submit calculations, including all assumptions. The Lessor shall use the following fixed factors in the calculation:  $C_3 = 2.0$ ,  $C_4 = 1.0$ ,  $C_5 = 5.0$ . All other factors shall be project-specific.

**6.7.7 RECEPTACLE CIRCUITS**

No more than 6 receptacles shall be installed on a single circuit.

**6.7.8 ESSENTIAL ELECTRICAL SYSTEM FOR CLINICS**

The Essential Electrical System (EES) for other health care facilities shall comply with the Type 3 system as defined in NFPA 99, shall supply loads as defined in NFPA 70 and 99, and shall comply with the Joint Commission testing and reporting requirements. The Type 3 Essential Electrical System shall supply power for the task illumination and limited power service that is related to the safety of life, and that is necessary for the safe cessation of procedures in progress. The alternate source of power shall be per NFPA 70 and 99.

If electrical life support equipment is required or critical care areas are present in the facility, the Essential Electrical System shall comply with the Type 1 system as defined in NFPA 99.

**A. Alternate Source of Power (Type 1 EES)**

The alternate source of power shall be one or more diesel engine-driven generator sets. Provide fuel supply for 24 hours of operation. Locate exhausts such that exhaust gases are not entrained into the building air. Fuel tank(s) shall have leak detection means. Offeror shall be responsible for corrective actions and remediation in the event of a tank malfunction or a violation of EPA or local regulations. Offeror shall license or register tanks as required by EPA or local Authorities Having Jurisdiction.

**6.7.9 POWER MONITORING AND METERING**

Power monitoring and metering are required to support energy use and conservations goals.

**6.7.10 ELECTRICAL ROOMS AND CLOSETS:**

No telecommunications equipment, other than telecommunications outlets, shall be placed within electrical rooms. Provide appropriate construction for the type of transformer(s) installed. Electrical closets shall stack vertically, and shall not be further than 150 feet [45.72 m] apart, to limit maximum 120V circuit length to approximately 75 feet [22.86 m].



Rooms that contain freestanding electrical equipment shall be sized so that sufficient space is provided to add one additional section to each unit of freestanding equipment. Provide extended pad space and spare conduits that will facilitate future installation of equipment and conductors. Spare space shall be indicated on drawings.

**6.7.11 ELECTRICAL EQUIPMENT**

Electrical distribution components shall have copper bussing. Each panelboard shall contain 25% spare breakers.

**6.7.12 LIGHTING FIXTURES**

Standardize lamp types across fixture types to limit the number of different lamp types and wattages used. Select the number of lamps and the fixture type according to the recommended finishes specified in each area to ensure the intended lighting levels.

Linear 2-foot and 4-foot T8 fluorescent lamps with CRI>70 and rated lifespan of 20,000 hours are the preferred interior lighting source. T5 2-foot and 4-foot double-ended linear sources are allowed for indoor locations. Compact fluorescent lamps in twin-, tri-, and quad-tube T4 configurations are allowed.

Color-corrected lamps, having a CRI of 85 or above and correlated color temperature between 5000 degrees K and 6000 degrees K, are required in recovery rooms, operating rooms (color shall match that of the surgical light), and dental rooms (examination, oral hygiene, oral surgery, recovery, labs, treatment, and x-ray).

Select fixtures and light sources with long operating lives; which utilize controlling elements (lenses, louvers, reflectors, etc.) designed to provide the best utilization of emitted light at the task location; that are appropriate for the ambient temperature; and that are not prone to dirt accumulation. In high ceiling areas, locate fixtures for maintenance access or provide access for maintenance equipment.

Exterior lighting shall comply with energy requirements, and should comply with Dark Sky principles. When required by VA, exterior lighting designs are to meet the requirements of local outdoor lighting codes. Criteria recommended in the IESNA Guideline for Security Lighting for People, Property, and Public Spaces (latest edition) shall govern the lighting design. Exterior lighting shall be coordinated with physical security, SSTV, and landscaping requirements.

**6.7.13 BALLASTS**

Electronic high-frequency type ballasts shall be used for all linear fluorescent lamps, unless special environmental and/or sensitive equipment concerns require the use of low-frequency hybrid electronic-electromagnetic ballasts that operate lamps at 60Hz. Hybrid electronic-electromagnetic ballasts are allowed for surgical rooms and critical care units, as deemed appropriate by the design A/E. For metal halide, use pulse-start ballasts, and pulse-start lamps with glass or ceramic arc tubes. Probe-start ballasts and lamps are not acceptable.

**6.7.14 LIGHTING CONTROL**

Energy consumption constraints dictate the installation of automatic lighting controls for both interior and exterior lighting. Select and design master and room-specific lighting control systems that comply with energy codes and requirements; that respond to daylight harvesting; that utilize the correct sensor and sensor location for the controlled space; that are compatible with the controlled ballasts and lamps; and that are responsive to the occupant's desire not to feel "over-controlled."

**6.8 TELECOMMUNICATIONS**

**6.8.1 TELECOMMUNICATIONS: CABLE PATHWAYS, WIRING, CABLES, AND INFRASTRUCTURE PLANT; AND SPECIAL TELECOMMUNICATIONS SYSTEMS**

**A. Scope**

This section covers requirements for cable pathways and raceways, fiber optic and copper wiring and cables, and special telecommunications systems (hereinafter referred to as "Special Systems"). Special Systems are identified as those telecommunications systems that are not voice, data, or fire alarm (or related functions).

Cable pathways, wiring, and cables (both copper (U/UTP and coax) and fiber optic) make up the Telecommunications Infrastructure Plant (TIP) for the voice, data, and Special Systems.

**B. Codes, References and Standards**

Execute all Work in accordance with, and comply at a minimum with, National Fire Protection Association (NFPA) codes, state and local building codes, and all other applicable codes and ordinances in force, governing the particular class of Work involved, for performance, workmanship, equipment, and materials. Additionally, comply with rules and regulations of public utilities and municipal departments affected by connection of services. Where conflicts between various codes, ordinances, rules, and regulations exist, comply with the most stringent. Wherever requirements of these Specifications, Drawings, or both, exceed those of the above items, the requirements of these Specifications, Drawings, or both, shall govern. Code compliance, at a minimum, is mandatory. Construe nothing in these Construction Documents as permitting work not in compliance, at a minimum, with these codes. Bring all conflicts observed between codes, ordinances, rules, regulations and these documents to the Architect's and Design Consultant's attention in sufficient time, prior to the opening of Bids, to prepare the Supplementary Drawings and Specifications Addenda required to resolve the conflict.

If the conflict is not reported timely, prior to the opening of bids, resolve the conflict and provide the installation in accordance with the governing codes and to the satisfaction of the Architect and Design Consultant, without additional compensation. Contractor will be held responsible for any violation of the law.

Obtain timely inspections by the constituted authorities having jurisdiction; and, upon final completion of the Work, obtain and deliver to the Owner executed final certificates of acceptance from these authorities having jurisdiction.

All material, manufacturing methods, handling, dimensions, methods of installation and test procedures shall conform to industry standards, acts, and codes, including, but not limited to the following, except where these Drawings and Specifications exceed them.

The references to the following codes, references and standards represent the most current and up-to-date revisions or printing as of the issue of this document including all sections, parts and their addenda. The Contractor is responsible for following the latest revision or printing (UON):

1. **ANSI/TIA-568 series – “Commercial Building Telecommunications Cabling Standard”**
2. **ANSI/TIA-569 series – “Commercial Building Standard for Telecommunications Pathways and Spaces”**
3. **TIA-526-7 – “Measurement of Optical Power Loss of Installed Single-Mode Fiber Cable Plant”**
4. **TIA-526-14 – “Optical Power Loss Measurements of Installed Multimode Fiber Cable Plant”**
5. **TIA TSB 140 – “Additional Guidelines for Field-Testing Length, Loss and Polarity of Optical Fiber Cabling Systems”**
6. **ANSI/TIA-606 – “Administration Standard for Commercial Telecommunications Infrastructure”**
7. **ANSI J-STD-607 – “Commercial Building Grounding (Earthing) and Bonding Requirements for Telecommunications**
8. **ANSI/TIA-758 – “Customer-Owned Outside Plant Telecommunications Cabling Standard”**
9. **NFPA 70 – National Electrical Code (locally observed version)**
10. **National Electrical Safety Code (NESC)**
11. **Americans with Disabilities Act (ADA)**

**C. General Requirements**

All exterior TIP cabling shall be provided as required (I.E. cabling to electrical transformers, gas meters, generator monitoring components, etc); pathways shall be in RMC conduit; conduit shall be sized to adhere to the 40% maximum fill ratio. Conduits shall use wide radius bends and be noted on the civil drawings for future identifications. All cabling that extends beyond the foot print of the building or is susceptible to lighting shall be terminated on Protective Equipment Terminals (PET). Where the OSP cabling is CAT6 the PET shall be rated CAT6.

All interior TIP cabling shall be installed using a wire basket cable tray, EMT conduits, conduit sleeves, re-enterable firestop systems and / or open-top hooks (J-Hooks). In hard ceiling /

inaccessible ceiling spaces pathways shall consist conduits. Backbone cables shall not use open-top hooks as pathways.

All pathways and their associated components (including fire stop systems and conduit sleeves) shall be sized to adhere to the maximum 40% fill ratio. TIP cables shall be provided within wall and floor assemblies in EMT conduits; the minimum conduit size shall be 1" nominal OD.

The term "provide," where used herein, shall mean the same as "designed, engineered, furnished, installed, tested, labeled, guaranteed, and certified."

A complete and functional telecommunications infrastructure plant (TIP) is required. In renovation projects, the TIP shall be compatible with the facility's existing TIP. The TIP shall at a minimum incorporate all voice, data, and Special Systems cables.

**D. Conduits and Boxes**

*(1) General*

For system conduits, junction boxes, routing, termination, risers, horizontal runs, sizing, etc., follow ANSI/TIA industry-standard requirements.

*(2) Minimum Size*

Conduit from outlet to above ceiling should be a minimum of one (1) inch and shall extend a minimum of 12" above the ceiling grid / surface.

All conduits shall be trimmed with a bonding bushing at the end closest to the serving TR / SSR and shall be bonded to the TBB; at the opposite end the conduit shall be trimmed with an insulation bushing to protect the cabling

Continuous conduit pathways and associated components shall be bonded to the Telecommunications Bonding Backbone (TBB) per ANSI/TIA 607.

Conduit runs outside the building shall be equipped with 4'x4'x4' precast concrete manholes designed for telecommunications after two 90-degree bends, after a series of bends that equate to 120-degrees of total pathway deviations from a straight line between each point of access, and after 400 linear feet from the service provider POP (not counting bend or traverse loss). Additional manholes shall be provided after each additional 400 linear feet until the pathway reaches the building exterior wall where the pathway is to ingress. At the ingress location a concrete precast handhole (4'x4'x4' min) shall be provided. In each manhole and within the handhole the contractor shall provide 50 feet of the backbone cabling passing through the device; the cabling shall be stored in a manner to facilitate future access. Ingress to each manhole and handhole shall be provided with bells to facilitate the conduit terminations, pulling irons, and wall-mounted stations to facilitate cable management. Manholes and the handhole shall be installed to facilitate the placement of the conduits 36" (minimum) below the finished terrain above; conduits shall ingress / egress the manholes and handhole in the center of the device.

All OSP conduits shall be rated Schedule 40 (minimum) and shall be located, at a minimum 36" below the finished terrain above. OSP Telecommunications conduits shall have a #8 AWG orange tracer wire attached to the upper conduit in a given run; tracer wires shall be

terminated and restarted at each manhole / handhole to facilitate location. Civil drawings shall be provided at the close of the project which identify the exact location of all Telecommunications conduits.

(3) *Interconnecting Conduit Requirements*

The following table identifies the minimum conduit requirements for the telecommunications and special systems infrastructure (not all conduits may be required, depending on rooms provided):

**EDITING NOTE: Determine the specific telecommunications spaces requirements before editing this paragraph and table.**

**Conduit Requirements**

Location A	Location B	Conduit Type	Quantity	Size
Entrance from street	4'x4'x4' handhole located outside building	Direct burial PVC or PE	4	4 inch [100 mm]
4'x4'x4' handhole located outside building	Main TR (MTR)	Direct burial PVC or PE	4	4 inch
Between Main TR and TRs on same floor & Between Main TR and Main SSR on same floor	Between TRs on same floor and Main TR & Between Main SSR and Main TR on same floor	n/a	Cable Tray	12 inch x 2 inch (min)
Stacked Telecommunications Rooms (TR)	Next Stacked TR	Sleeve; where floor is fire rated this shall be a re-enterrable firestop system	4	4 inch [100 mm]
Stacked Special Systems Rooms (SSR)	Next Stacked SSRSSR	Sleeve; where floor is fire rated this shall be a re-enterrable firestop system	4	4 inch [100 mm]
Between TRs on same floor	Between TRs on same floor	n/a	Cable Tray	12 inch [305 mm]
Between SSRs on same floor	Between SSRs on same floor	n/a	Cable Tray	12 inch [305 mm]
Distance of 5 feet from 4'x4'x4' Telecommunications	4'x4'x4' Telecommunication s handhole located	Direct burial PVC or PEPE	1	2 inch

Location A	Location B	Conduit Type	Quantity	Size
handhole located outside the building	outside building			
4'x4'x4' Telecommunications handhole located outside building	Main SSRSSR	Direct burial PVC or PEPE	11	2 inch

Note: All Technology and security pathways (including all associated components such as conduit sleeves, open-top hooks (J-hooks) waterfall devices, re-enterable fire stop systems, etc.) shall adhere to the maximum 40% fill ratio. The chart above reflects only the minimum conduits and /or cable tray pathways to be provided.

Backbone cabling shall not be ran in the same conduit pathway, conduit sleeve, or re-enterable firestop system as horizontal cabling. Backbone cabling shall not be placed in non-continuous pathways such as open-top (J-hook) hooks. Backbone cabling may be installed within the same cable tray as horizontal cabling where the backbone cable is protected by being installed within corrugated innerduct that is managed to one side of the cable tray.

*(4) Horizontal Pathways*

Basket type cable tray shall be installed above suspended ceilings in corridors. Minimum size shall be 12 in [305 mm] wide with 2 in [50 mm] sides. Cable tray shall not pass through fire rated wall or floor assemblies. Where fire rated wall and floor assemblies are penetrated for the purpose of providing a telecommunications pathway a re-enterable fire stop system shall be installed. The quantity and size of the re-enterable fire stop systems shall conform to the 40% maximum fill ratio.

Surface metal raceways are not acceptable and will not be approved for wire or cable on the outside of walls.

Provide cable radius drop fittings (aka waterfalls) where cables exit basket type cable tray. Where a change in elevation of a cable tray based pathway requires more than a 30 degree bend the change shall take place in multiple sticks of cable tray. Changes in direction shall be provided through manufacturer components designed to facilitate the change and shall take into account the minimum bend radius of a given cable type.

Where the assembly is fire rated the Telecommunications conduit sleeve shall be replaced with a re-enterable fire stop system; the system shall be installed per manufacturer's instructions. Where the penetrating pathway is a continuous conduit and the assembly is fire rated the space between the assembly and the exterior surface of the conduit shall be sealed with the appropriate **fire** rated caulking. Where the assembly is not fire rated the space between the assembly and the exterior surface of the continuous conduit shall be sealed with the appropriate STC rated caulking so as to return the assembly to its original STC rating.

*(5) Vertical Pathways*

Provide conduits of the size and counts depicted in the Conduit Requirements table in each TR as shown. Also, ensure each floor and ceiling penetration is sleeved and the

corresponding conduit ends secured AFF and BFC, as described herein. Where the assembly is fire rated the Telecommunications conduit sleeve shall be replaced with a re-enterable fire stop system; the system shall be installed per manufacturer's instructions. Where the penetrating pathway is a continuous conduit and the assembly is fire rated the space between the assembly and the exterior surface of the conduit shall be sealed with the appropriate fire rated caulking. Where the assembly is not fire rated the space between the assembly and the exterior surface of the continuous conduit shall be sealed with the appropriate STC rated caulking so as to return the assembly to its original STC rating.

(6) *Telecommunications Cable Ducts Under Cellular Floors*

Underfloor ducts and/or cellular floors shall be considered as air plenum areas. Therefore, all system wires and cables provided in these areas shall be plenum-rated and installed accordingly. Cellular floor systems, where installed in TRs and SSRs or where Telecommunications cabling pathways use the floor system as a component of the overall pathways shall be bonded to the TBB.

Each underfloor cable duct and/or cellular floor installation shall be provided with appropriate wire management system(s).

**E. Telecommunications Outlets**

Outlet / back boxes shall be double-gang, UON, to provide space within the backbox for 12" of cable slack. Each backbox shall measure 4-11/16" square by 2-1/8" deep (min).

Standard outlet boxes shall be covered with single-gang faceplates; each single-gang faceplate shall provide (4) four ports (minimum). Double gang faceplates shall be used where the quantity of cabling to be delivered to a given work area outlet exceeds four. The material and color of the telecommunications faceplate shall mirror that of the applicable electrical outlet. Fill unused ports with blanks that are of the same material and color as the faceplate.

For cable installed in floor mounted devices (floor boxes, poke-throughs) route telecommunications / special systems cabling in conduit (for floor boxes) or cable tray / open-top hooks (for poke-throughs) to the floor device. Contractor shall provide all applicable adapters to provide for a secure termination of each 8P8C connector. Color of adapter / faceplates shall be coordinated with the architect.

For cable installed in systems furniture route cables through raceways internal to the furniture frame to the outlet at each workstation. Efforts shall be provided to ensure that cabling is not exposed to view but where the exposure of the cabling cannot be avoided the exposed cabling shall be covered with black 5/8" spiral wrap. Contractor shall provide all applicable adapters to provide for a secure termination of the 8P8C connector. Color of adapter / faceplates shall be coordinated with the architect.

For cable installed in case work extend conduit pathway to the required backbox location; conduit pathway shall not be visible to clients. Mount a 4-port (minimum) double gang faceplate over the backbox to completely cover the surface of the surface mounted backbox. All faceplates, regardless of the installation locations, shall provide labeling windows.

Unless otherwise specified, mounting heights for telecommunication outlets shall be:

**Telecommunications / Special Systems Work Area Outlets Mounting Height**

AREA/FUNCTION	MOUNTING REQUIREMENTS
Pay station	4 ft [1,200 mm] above finished floor (AFF)
Desk outlet	1.5 ft [450 mm] AFF
Special Use Areas	As required by design

Outlets shall not be located within 48 in [1200 mm] of the "swing open" side of inward opening doors or within 18 in [450 mm] of light switches, thermostats, or other electrical receptacles.

**Patient Bed Prefabricated Wall Units (PBPU):** Use the provided receptacle box, conduit and connections. The PBPU UL listing shall not be violated. The Lessor is responsible to restore each unit's violated UL to the OEM standard at the Lessor's expense.

Elevator voice cables providing voice service to the elevator car shall be extended to the elevator equipment room.

**F. Drawings**

The A/E shall clearly show on a reflective ceiling plan Telecommunications structured cabling system components installed 7'-6" or higher; scale not less than 1/8 inch. In particular the drawing/s shall depict: all backbone cable pathways (regardless of the pathway type), all cable tray pathways (size of tray shall be clearly labeled), all conduit pathways where the conduit and/or conduit sleeve is 2" or greater in nominal OD (nominal OD of conduit shall be shown on drawings), the location and type of all firestop systems installed for the purpose of providing a Telecommunications/Special Systems pathway, location of bonding/grounding busbars, installed backboards, ladder racking (vertical and horizontal), and junction/pull boxes. Drawing/s shall reflect those work area outlet locations installed in support of the placement of the PA Speaker placement, WLAN wireless access points, MATV monitors (where applicable) and any other work area outlet required at 7'-6" or higher that is not related to Security. A separate set of reflective ceiling plans, scale not less than 1/8 inch, shall be provided to identify the placement of Security based work area outlets components (SSTV cameras, Intrusion detection devices, door contact devices, etc.) that are to be installed at 7'-6" or higher.

The A/E shall clearly show on a floor plan, scale not less than 1/8 inch, Telecommunications structured cabling system components installed lower than 7'-6" such as but not limited to wall mounted voice/data work area outlets, video (AV and MATV) work area outlets, floor mounted devices such as floor boxes, etc. A separate set of floor plans, scale not less than 1/8 inch, provide details to identify the placement of Security based work area outlets components (SSTV cameras, electronic door devices, request-to-exit devices, door monitor devices, security monitors (where applicable)) that are to be installed lower than 7'-6".

The A/E shall clearly show on enlarged floor/RC plan, scale not less than 1/4 inch, the build out of each Telecommunications Room, each Special Systems Room, and any other space where details are required to clearly identify the installation process. In particular identify the ingress of OSP conduit pathways, location of Protective Equipment Terminals, all wall mounted 110-blocks used in the termination of copper multi-pair cabling, the location of



equipment cabinets, enclosures, and/or racks, vertical cable managers, and the location of all installed Special Systems headend equipment, the location of fiber enclosures used in the termination of the fiber backbone cables, placement of PDUs, placement of modular patch panels, the placement of horizontal cable management, etc.

On the Telecommunications site plan the A/E shall clearly show the exterior and/or underground raceway system to be installed in support of the Telecommunications and Special Systems networks. Drawings shall reflect, but not limited to, OSP conduits, including distances between buildings, manholes / handholes, in-ground pullboxes, and pathways below the 1<sup>st</sup> floor concrete slab from the handhole to be installed within 15 feet of the building exterior to the Main Telecommunications Room and the Main Special Systems Room.

All raceways sizes shall be indicated on the drawings.

Drawings must include a detailed riser diagram for all distribution systems, and the interfaces between systems.

**G. Wires and Cables**

**Backbone Cabling**

The system shall be installed by a structured cabling contractor certified by the manufacturer to install the system and capable of offering the manufacturer’s system warranty. Such warranty should be a minimum of 20 years. Contractor shall provide copies of the manufacturer’s contractor certification documents at pre-bid to support the contractor’s ability to provide the 20-year warranty.

Plenum / CMP-rated cabling / wires shall be provided in all areas as noted by the locally observed NEC. Non-plenum/CM wire or cable shall only be used where allowed by the locally observed NEC.

**Copper Multi-pair Backbone Cabling**

For new construction, provide (1) one 25-pair plenum rated multi-pair cable trunk from the Main Telecommunications Room to each secondary Telecommunications Room (TR). In each TR cable pairs shall terminate on a 25-pair 110-block with legs (field side 110-block). Contractor shall provide (1) one rack mounted 24-pair voice grade patch panel with 180 degree Amphenol female connectors on back. In the TR provide (1) one 25-pair cross connect trunk cable with male 180 degree Amphenol connector for each female connector on the back of the voice grade patch panel. Open end of this cross-connect trunk shall be terminated on a 110-panel with legs (network side 110-block). Contractor shall provide (1) one 500 ft. reel of white/blue 1-pair cross connect cabling for the cross-connection by VA OI&T of the incoming backbone cabling from the Main TR (field block) and the 110-block installed to terminate the Amphenol ended 25-pair trunk cable (network side block).

For new construction, provide (1) one 25-pair plenum rated multi-pair cable trunk from the Main Special System Room (Main SSR) to each secondary Special Systems Room (SSR). In each secondary SSR cable pairs shall terminate on a 25-pair 110-block with legs (field side 110-block). Contractor shall provide (1) one rack mounted 24-pair voice grade patch panel with 180 degree Amphenol female connectors on back. In the SSR provide (1) one 25-pair cross connect trunk cable with male 180 degree Amphenol connector for each female

connector on the back of the voice grade patch panel. Open end of this cross-connect trunk shall be terminated on a 110-panel with legs (network side 110-block). Contractor shall provide (1) one 500 ft. reel of white/blue 1-pair cross connect cabling for the cross-connection by Lessor of the incoming backbone cabling from the Main SSR (field block) and the 110-block installed to terminate the Amphenol ended 25-pair trunk cable (network side block).

Test all pairs; replace the entire cable trunk should 1-pair not pass the noted ANSI/TIA recognized testing for copper multi-pair backbone cabling and the failure cannot be corrected through re-termination.

**Fiber Backbone Cabling**

For new construction, provide (1) one 12-strand singlemode plenum armored fiber trunk from the Main Telecommunications Room to each secondary Telecommunications Room. In the MTR the fiber trunk shall terminate in a 2RU fiber enclosure dedicated to singlemode fiber. In the TR terminate the fiber in a 1RU fiber enclosure with LC connector based adapter plates using fusion splicing and LC-connector based simplex pigtailed dedicated to singlemode fiber.

For new construction, provide (1) one 24-strand laser optimized OM3 plenum armored fiber trunk from the Main Telecommunications Room to each secondary Telecommunications Room. In the MTR the fiber trunk shall terminate in a 2RU fiber enclosure dedicated to multimode fiber. In the TR terminate the fiber in a 1RU fiber enclosure with LC connector based adapter plates using fusion splicing and LC-connector based simplex pigtailed dedicated to multimode fiber.

For new construction, provide (1) one 12-strand singlemode plenum armored fiber trunk from the Main Telecommunications Room to the Main SSR. In the MTR the fiber trunk shall terminate in a 1RU fiber enclosure dedicated to the interconnectivity of the Main TR and the Main SSR. The singlemode trunk shall terminate in the first slot of the 1RU fiber enclosure. In the Main SSR the fiber trunk shall terminate in a 1RU fiber enclosure dedicated to the interconnectivity of the Main TR and the Main SSR. The singlemode trunk shall terminate in the first slot of the 1RU fiber enclosure. LC connector based adapter plates using fusion splicing and LC-connector based simplex pigtailed dedicated to singlemode fiber shall be used to terminate all strands of the singlemode tie trunk.

For new construction, provide (1) one 12-strand LO OM3 multimode plenum armored fiber trunk from the Main Telecommunications Room to the Main SSR. In the MTR the fiber trunk shall terminate in a 1RU fiber enclosure dedicated to the interconnectivity of the Main TR and the Main SSR. The LO OM3 multimode plenum trunk shall terminate in the second slot of the 1RU fiber enclosure. In the Main SSR the fiber trunk shall terminate in a 1RU fiber enclosure dedicated to the interconnectivity of the Main TR and the Main SSR. The LO OM3 multimode plenum trunk shall terminate in the second slot of the 1RU fiber enclosure. LC connector based adapter plates using fusion splicing and LC-connector based simplex pigtailed dedicated to LO OM3 multimode plenum fiber shall be used to terminate all strands of the LO OM3 multimode plenum tie trunk.

For new construction, provide (1) one 12-strand singlemode plenum armored fiber trunk from the Main Special Systems Room (Main SSR) to each secondary Special Systems Room. In the Main SSR the fiber trunk shall terminate in a 2RU fiber enclosure dedicated to singlemode

fiber. In the SSR terminate the fiber in a 1RU fiber enclosure with LC connector based adapter plates using fusion splicing and LC-connector based simplex pigtails dedicated to singlemode fiber.

For new construction, provide (1) one 24-strand laser optimized OM3 plenum armored fiber trunk from the Main Special Systems Room to each secondary Special Systems Room. In the Main SSR the fiber trunk shall terminate in a 2RU fiber enclosure dedicated to multimode fiber. In the SSR terminate the fiber in a 1RU fiber enclosure with LC connector based adapter plates using fusion splicing and LC-connector based simplex pigtails dedicated to multimode fiber.

Bond all armored trunks to the TBB per ANSI/TIA 607; label all fiber strands per the facility labeling scheme.

All fiber strands shall be tested per ANSI/TIA fiber testing standards noted in this document. All backbone fibers shall be tested at both wave lengths in both directions. Test results shall be labeled to mirror the labeling of each fiber strand.

For new construction, provide (1) one 12-strand singlemode plenum armored fiber trunk from the Main Telecommunications Room to each secondary Telecommunications Room. In the

**Coax Backbone Cabling**

Where the MATV / CATV service is delivered to the site using coax cabling: extend from the Main SSR to each secondary SSR (1) one RG11 coax. Terminate the coax with compression based F-connectors; coordinate the placement of the coax with the location of the video amplifier for that SSR. Test per industry recognized standards for video coax cabling.

**Bonding / Grounding Backbone Cabling**

Per the latest version of ANSI/TIA 607 provide the Telecommunications Bonding Backbone (TBB) from the Main Telecommunications Room to each secondary Telecommunications Room (TR) and to each Special Systems Room (SSR - Main and secondary). In the Main Telecommunications Room each segment of the TBB shall be terminated on the Main Telecommunications Grounding Busbar (TMGB). At the secondary TR and in each Special Systems Room the TBB shall terminate on a Telecommunications Ground Bar (TGB). The TBB shall be extended from the Main TR TMGB to the main electrical ground for the facility; the contractor shall coordinate this with Division 26.

The TBB shall be sized based upon the ANSI/TIA 607 standard with the minimum size of the TBB between busbars to be a 1/0 AWG. Minimum size bonding strap for the project shall be a #6 stranded AWG conductor. Bonding strap cable sheaths shall adhere to the observed NEC plenum requirements for the site.

**Horizontal Cabling**

The system shall be installed by a structured cabling contractor certified by the manufacturer to install the system and capable of offering the manufacturer's system warranty. Such warranty should be a minimum of 20 years. Contractor shall provide copies of the

manufacturer's contractor certification documents at pre-bid to support the contractor's ability to provide the 20-year warranty.

Plenum / CMP-rated cabling / wires shall be provided in all areas as noted by the locally observed NEC. Non-plenum/CM wire or cable shall only be used where allowed by the locally observed NEC.

Where cabling is to be installed in a conduit pathway that is below and/or on grade or in-slab the cabling shall be rated indoor/outdoor.

All horizontal cabling for this facility shall be terminated using the ANSI T568B pin out. All pairs shall be terminated; all cables shall be labeled and tested per the noted ANSI/TIA 568 standards.

**U/UTP CAT6 Cabling**

For new construction, the voice and data OI&T structured cabling system shall be U/UTP Category 6 cable and Category 6 termination hardware; terminate all categorized cabling using the ANSI/TI T568B pin out on rack mounted modular patch panels.. Contractor shall provide, at a minimum, (3) three CAT6 U/UTP plenum rated cables to each standard work area outlet. Each standard faceplate shall mirror the color and material of the associated electrical faceplate, shall provide (4) four ports and all unused ports shall be filled with blanks whose color matches the faceplate. Non-standard work area outlets may require different quantities of cabling. Examples of this are (but not limited to), UON: a single CAT6 U/UTP cable shall be provided for each wall mounted telephone, each MATV / CATV monitor, and each security camera; (2) two CAT6 U/UTP cables shall be provided for each wireless access point. The contractor shall identify all work area outlet types to be installed and shall clearly depict the cabling for each in detailed drawings.

Cable and 8P8C connector (jack) colors shall mirror the locally preferred color scheme and placement within each standard work area outlet (faceplate); contractor shall verify with COR the color/s to be used prior to implementation – contractor shall note that all U/UTP cables shall terminate in rack mounted patch panels regardless of the usage and shall be cross connected within the TR to the applicable application components.

Contractor shall provide (1) one CAT 6 U/UTP plenum rated cable to each location where a VA Panic Notification system monitor is to be installed. Cabling to security monitors shall be extended back to the notification headend equipment provided by VA. Contractor shall coordinate the location of the headend with the COR prior to implementation. Terminate the CAT6 cable with a female CAT6 8P8C connector (jack) and shall be installed in port 1 of a 2-port faceplate. Port 2 of all MATV / CATV and security monitors shall be populated with (1) one RG6 coax that shall be terminated with compression based F-connectors.

**EDITING NOTE: Determine specific Special Systems requirements before editing this paragraph. Remove unnecessary systems.**

**H. Special Systems Specific Requirements**

Cabling for the OI&T network shall be extended using approved pathways from the serving Telecommunications Room to the work area outlet. Cabling for the FMS Special Systems

network shall be extended from the serving Special Systems Room to the Special Systems work area outlet using approved pathways.

Cable and 8P8C connector (jack) colors shall mirror the locally preferred color scheme and placement within each standard work area outlet (faceplate); current color for FMS cabling and 8P8C connectors is noted as being green. Contractor shall verify with COR the color/s to be used prior to implementation – contractor shall note that all U/UTP cables shall terminate in rack mounted patch panels regardless of the usage and shall be cross connected within the SSR to the applicable application components.

All installed cabling shall be tested per the identified ANSI/TIA standards.

**Coax RG6 Cabling**

Where the MATV service provider utilizes coax to deliver the MATV / CATV services provide (1) one RG6 plenum rated coax to each MATV monitor. Terminate the RG6 coax with compression based F-connectors and installed in port 2 of a 2-port faceplate. In the SSR terminate the cabling in rack mounted modular patch panel dedicated to MATV.

Contractor shall provide (1) one RG6 plenum rated coax to each location where a Where the VA provided Panic Notification system monitor is to be installed. Cabling to by the VA utilizes coax to interconnect the security monitors shall be extended back to the notification headend equipment provided by VA. Contractor shall coordinate the location of the headend with the COR prior to implementation provide (1) one RG6 plenum rated coax to the monitor. Terminate the RG6 coax with compression based F-connectors and installed in port 2 of a 2-port faceplate. In the SSR terminate the cabling in rack mounted modular patch panel dedicated to Security.

Port 1 of all MATV / CATV and security monitors shall be populated with (1) one CAT6 U/UTP cable terminated with a female CAT6 8P8C connector (jack).

**EDITING NOTE: Determine specific Special Systems requirements before editing this paragraph. Remove unnecessary systems.**

**I. Special Systems Specific Requirements**

*(1) General*

Noted special systems shall be provided for this facility; headend equipment / components shall be located in the Special Systems Room/s. The topology for the special systems network shall be a star topology; the Main Special Systems Room shall be the center for this star topology.

Refer to Schedule B for details concerning the following required Special Systems for this facility.

Nurse Call

Public Address (PA) – All Call only (no zones)

Mast Antenna Television (MATV – aka CATV)

Security Surveillance Television (SSTV)

Security Management and Control, and Centralized Police Security Management Systems

Intercommunication System – standalone system Master to Remote at designated doors

Electronic Access and Door Control  
Motion Intrusion Detection  
Duress Alarm and Emergency Notification System  
RFID / RTLS  
Two-way Radio Paging System – for on-site only communications  
Distributed Antenna System – with open architecture  
Video Conferencing System (VTEL)  
WLAN – Public Hotspot

The following Special Systems are not required for this facility.

Radio Entertainment Distribution (RED)

Two-Way Radio System  
VA Satellite System (VSAT)

**6.8.2 TELECOMMUNICATIONS/SPECIAL SYSTEMS ROOMS AND SPACE REQUIREMENTS**

**A. Scope**

This chapter covers the requirements for telecommunications, data, and special systems rooms and spaces.

Contractor shall coordinate with local VA OI&T to identify local policies and procedures that are to be adhered to in the design and implementation of the Structured Cabling System (SCS) including pathways, spaces and all cabling for this facility.

**B. Room Types and Definitions**

**EDITING NOTE: Determine the specific telecommunications spaces requirements before editing this paragraph.**

*(1) General*

Provide rooms as determined by project requirements. Not all room types may be required, and not all required room types may be listed below.

*(2) Telecommunications Room (TR)*

The Telecommunications Room is a room designed to centrally deliver OI&T data and voice, services to users and equipment on that floor. There may be multiple rooms on a given floor.

The design "Telecommunications Room" replaces the term "Signal Closet," which is no longer used. The new designation indicates the current construction practice of combining voice, data, and fire alarm functions into one terminus, control, and distribution point.

One TR shall be designated as the Main TR; this space shall act as the center of the logical star topology that the VA OI&T network shall be designed around. The Main TR shall be the point of ingress for the OSP conduits and therefore the incoming backbone cabling and act as the center for the facilities Telecommunications Bonding / Grounding backbone.

(3) *Special Systems Room (SSR)*

The Special Systems Room is a room designed to centrally deliver FMS data and voice services required to support the special systems to be installed within this facility. There may be multiple rooms on a given floor.

One SSR shall be designated as the Main SSR; this space shall act as the center of the logical star topology that the FMS network shall be designed around. The Main SSR shall be the main point of installation of the special systems headend equipment.

Construction requirements for each SSR shall mirror that of the Telecommunications Rooms with respect to room construction cooling, humidity control, power, lighting, bonding / grounding, and control of static discharge.

(4) *Police, Emergency, and Designated Control Rooms*

Police Control Room (PCR), Engineering Control Room (ECR), and other designated control rooms are other rooms throughout the facility that house specialized functions.

**C. General Environmental, Power and Space Requirements**

(1) *General*

The following is a list of minimal environmental, power, and space requirements that apply to all voice, data, and special system rooms and spaces (hereinafter 'rooms' in this article) that contain electronic equipment. The list is not all inclusive and additional information or requirements may be found in this chapter.

(2) *Location, Protection, and Access*

Rooms shall be rectangular in shape and free of obstructions, such as columns and braces, if possible. If columns or braces are present, they shall not impede the installation or operation of individual system equipment and access to each equipment cabinet's front, side, or rear. The floor area occupied by the column shall not be counted as a part of the room's minimum useable square foot requirements.

Rooms shall be located above the Base Flood Elevation. Rooms shall not be located beneath toilets, showers, laboratories, kitchens, sinks, open courtyards, planters, roof drain leaders, or other areas where water service is provided. Active voice, data, and special systems equipment is not allowed to be installed in elevator penthouses or mechanical rooms; dedicated rooms are required.

For this facility the Telecommunications and Special Systems Rooms serving a particular area shall be provided in separate spaces. Access to each space shall be from the corridor outside the space. The placement of each TR and SSR shall facilitate the maximum horizontal cable length which is 90 meters (All horizontal cabling shall be ran parallel to the building walls). Rooms shall be designed to allow maintenance equipment access, and to facilitate equipment replacement without significant demolition and reconstruction.

Rooms shall not be located in patient care areas.

Any pipe or duct system foreign to the telecommunications installation shall not enter or pass through a room. The A/E shall ensure that foreign piping such as water pipes, steam pipes, medical gas pipes, soil pipes, sanitary drains, storm drains, A/C ducts, and other unrelated

systems utilized for or containing liquids, or gases are not installed or pass through rooms. Sprinkler piping serving only telecommunications/special systems spaces shall not be considered foreign to the telecommunications installation, and shall not pass through the space to serve other areas.

Rooms shall be located away from or protected from sources of EMI at a distance which will reduce the interference to less than 3.0V/M through the frequency spectrum. Pay special attention to EMI from electrical power supplies, transformers, motors, generators, x-ray equipment, radio transmitters, and induction heating devices.

Rooms shall be located to minimize effects of lightning strikes and sunlight radiant heating. Rooms shall not have windows.

Rooms that are considered computer rooms should not be located on exterior walls.

Rooms shall have a controlled access door with card reader to control access to authorized personnel and shall be provided with intrusion detection devices as a part of the Electronic Access and Door Control system.

(3) *Room Envelope*

Finish flooring shall be anti-static plastic laminate or vinyl tile. The acceptable resistance range is from 0.5 megohm minimum to 20,000 megohm maximum.

Floors, walls and ceilings shall be sealed to prevent dust, and all walls shall be painted white.

Telecom backboards shall cover all walls. Backboards shall be ¾" fire-retardant AC grade void free plywood. Installation of each 4'x8' sheet shall begin at 12" AFF and shall extend to a minimum distance of 12ft AFF. Plywood shall be painted on all six sides with (2) two coats of fire retardant white paint. One fire stamp shall be visible on each installed sheet; where the stamp appears only on a side with voids the voids shall be filled prior to the painting.

(4) *Heating, Ventilation, and Air Conditioning*

Design conditions shall be 75 °F [24 °C] dry bulb temperature (cooling), 65 °F [18 °C] dry bulb temperature (heating), with individual room temperature control and provide 30 to 55% relative humidity. Cooling requirements shall be based on system design with 30% reserve capacity and be 100% redundant.

(5) *Power*

Power for all rooms and equipment shall be connected to the appropriate branch of the Essential Electrical System. Equipment shall be backed by an uninterruptible power supply (UPS), except HVAC equipment; each UPS shall provide 30 minutes of runtime for the equipment it is to support. Contractor shall coordinate with the COR the equipment requirements prior to implementation.. Provide 120V 20A and 30A capacity, and 220/208/240V/240V 20/30A capability as required.

UPS units shall be provided by the contractor for each equipment rack in each TR and SSR where active equipment is to be installed. Each UPS shall be capable of supporting up to 240V with equipment that requires lower voltages (such as 120V 20A and 30A and 220/208/240V 20/30A) be supported as well.

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At the top of each rack with active equipment a PDU shall be provided; the PDU shall interconnect to the UPS and shall be manageable via the VA intranet.

Installed receptacles type shall match with equipment provided and installed by VA Office of Information and Technology (OI&T). UPS equipment shall be sized based on the equipment requirements, plus future anticipated growth. The initial design load shall not be less than 30% and not more than 70% of the UPS capacity.

The UPS shall be monitored by the PCR SMS for power, alarms, and alarm history. The UPS shall provide MIBs that will communicate to the PCR SMS. The UPS shall be provided with computer system shutdown software and hardware connectivity as required.

Provide (2) two separate redundant and 120V, dedicated 30A circuits with one (1) quadruplex receptacle to be located at 8' AFF on wall that the equipment rack line up extends from; coordinate voltage as noted above.. Outlet shall be positioned just on the backside of the line-up of the equipment racks to facilitate the connectivity of the PDUs that shall be installed in each rack that is to maintain active equipment. The second outlet shall be installed at 18" AFF below the upper outlet. On the other walls of the space provide centered in each (1) duplex convenience outlet. All convenience receptacles shall be installed 18 in [457.2 mm] above finished floor and flush with the surface of the telecomm backboard. Convenience receptacles shall be provided on a dedicated 20 A circuit.

PDUs shall be installed within each 2-post or wall mounted cabinet that is to contain active equipment; install PDUs at the top of the rack / cabinet. Coordinate PDU requirements with VA to ensure the proper input outlet plug type and output outlets are provided.

*(6) Grounding*

Telecommunications systems grounding and bonding will consist, at a minimum, of an equipotential grounding system (Telecommunications Bonding Backbone (TBB)) that originates from the Telecommunications Main Ground Bar (TMGB). The TMGB shall be located in the Main Telecommunications Room is then connected to other telecommunications spaces (independently from other building grounding systems such as electrical or lightning protection) via the TBB. In secondary TRs and in all SSRs provide a Telecommunications Ground Busbar (TGB); interconnect the TGB to the TMGB with a segment of the TBB. Size the TBB based upon the latest version of the ANSI/IS 607. Minimum size of the TBB shall be 1/0 AWG. The TMGB is connected to the building electrical service ground point via a mechanically and electrically protected minimum #1/0 copper equipotential grounding conductor, and to building steel. The TMGB is connected to the building electrical service ground point via a mechanically and electrically protected minimum #1/0 copper equipotential grounding conductor, and to building steel. The TBB helps ensure that all equipment in the telecommunications spaces is referenced at the same equipotential earth ground level, and reduces high frequency electrical noise resulting from high speed digital switching, RFI, and EMI. Cabinet, rack and fixed structures bonding conductor(s) shall be minimum #6 AWG-insulated stranded copper wire (or equal copper braid). All frames and cabinets shall be grounded in accordance with latest version of the ANSI/TIA-607.

The telecommunications grounding system will comply with ANSI/TIA-607 requirements and follow BICSI – Telecommunications Distribution Methods Manual (Latest Edition) guidelines.

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(7) Administration

Telecommunications / Special Systems structured cabling system components shall be labeled per the locally approved labeling scheme. Coordinate the labeling requirements with the COR prior to implementation. All labels shall be mechanically generated; labels for cabling shall be self-laminating.

Up-to-date As-Built drawings shall be maintained on site at all times during the project construction.

Full size record drawings shall be provided at turn over to VA that identify the locations of all work area outlets, pathways (as previously noted), and spaces.

(8) Structured Cabling System Testing

Telecommunications / Special Systems structured cabling system components shall be tested as noted in the ANSI/TIA standards noted above. Test results shall be provided in paper (abbreviated version) and electronically (on CD in format of testing equipment) at turn over.

(9) Security

Comply with Physical Security Criteria in Paragraph 4.2.4 PHYSICAL SECURITY AND NATURAL DISASTERS RESISTIVE DESIGN and as follows. Provide electronic security system that is connected to and fully functional with the PCR SMTS and a cipher lock with numeric keypad, associated electronic card access device, and electric strike. Each room security system shall be powered from either the building or a local UPS system.

Each programmable door control shall be fully functional with the SMTS in a stand-alone status if its connection to the controller is cut. Once the connection is restored, the local door control system shall update the SMTS on all operations that occurred after the connection was interrupted, and the SMTS shall update the local door control units to current operational function.

(10) Equipment Racks – 2-post

Unless otherwise noted: provide (4) four (min) 7'-0" 2-post black equipment racks in the Main TR and (3) three (min) 7'-0" 2-post black equipment racks in each secondary TR.

In the Main SSR provide (2) two 7'-0" 2-post black equipment racks. In each secondary SSR provide (2) two 7'-0" 2-post black equipment racks; UON.

Size all equipment racks to facilitate the installation of 19" telecommunications equipment. Interconnect each equipment rack to the overhead run of 12" wide black ladder rack (ladder rack shall provide 9" rung spacing) through the installation of a 6" runway extension kit and a 3" top plate for each equipment rack installed. A second row of black ladder rack (18" wide with 9" rung spacing) shall be provided around the perimeter of each TR and SSR at 8'-6"; the two rows shall be tied together using waterfall devices manufactured by same manufacturer as the ladder rack.

Minimum static load capacity of all equipment racks shall be 2,000 lb.

Bond all equipment racks to the TGB with #6 AWG stranded bonding strap; do not daisy chain equipment rack bonding.

*(11) Wall Mounted Cabinets*

Where required provide black wall mounted swing gate-based cabinet/s; cabinets shall be sized to facilitate the installation of 19" telecommunications equipment. The minimum size of the cabinet shall be 24" high x 24" wide x 30" deep; coordinate overall height of each cabinet to ensure that all components to be rack mounted can be accommodated within the wall mounted cabinet. Coordinate the depth to ensure that all equipment intended for installation will be capable of being mounted in the cabinet prior to implementation. Coordinate the quantity of cabinets to ensure all components can be installed that are required to be installed within the cabinet. The CPI CUBE-iT Plus shall be used as the basis of design. Cabinet shall offer a locking feature where required by VA. Bond all cabinets to the TGB with #6 AWG stranded bonding strap; do not daisy chain cabinet bonding.

Minimum static load capacity of all equipment cabinets shall be 200 lb.

*(12) Wall Mounted Enclosures*

Where a low profile enclosure is required provide a black wall mounted enclosure designed for constrained spaces; the Tripp Lite 5U SmartRack 5U Low-Profile shall be used as the basis of design. Enclosure shall be capable of supporting the installation of 19" based telecommunications equipment. Enclosure shall offer a locking feature where required by VA. Bond all enclosures to the TGB with #6 AWG stranded bonding strap; do not daisy chain enclosure bonding.

Minimum static load capacity of all equipment cabinets shall be 150 lb.

*(13) Patch Panels*

Provide 48-port black rack mountable modular patch panels for the termination of all categorized cabling terminated in each TR and in each SSR. Quantity shall be determined based upon the number of cables to be terminated and the allowance of 15% for growth. Patch panels shall be black and provide for labeling.

Where a patch panel is to be wall mounted the panel shall be mounted in a hinged support bracket that allows for the patch panel to swing out for ease of termination.

Provide 24-port voice grade patch panels (with female Amphenol connectors on the back) in each TR and in each SSR for the cross connection of copper multi-pair backbone cabling from wall mounted 110-block with legs to the equipment rack. Each port on the voice grade patch panel shall terminate (1) one copper pair.

*(14) Wire Management*

Provide 2RU black horizontal double sided cable managers with rings below each modular patch panel installed.

Provide 2RU black horizontal single sided cable managers with rings below each active switch installed; coordinate the number of single sided cable manager required with VA OI&T and FMS network managers.

Provide 7' H x 6" W x 22" D black vertical cable managers with hinged covers at the outer ends of each equipment rack line up. Between equipment racks provide 7' H x 10" W x 22" D black vertical cable managers with hinged covers.

*(15) Configuration*

Minimum room size shall be 10 feet [3 m] deep x 10 feet [3.6 m] wide. Minimum door size shall be 50 in [1,000 mm] wide x 84 in [2,100 mm] high. For every additional 10,000 sq ft [930 sq m] of floor space served, there shall be 10 linear feet [3 linear m] of wall space required.

Where Telecommunications Room and Special Systems Rooms share a common space the spaces shall be separated by a controlled fencing with the OI&T structured cabling system components and active equipment to be located behind the controlled access to provide access only to VA OI&T personnel. Control fencing shall be bonded to the TBB.

Rooms shall be vertically stacked where multiple floors are present.

Room height shall be a minimum of 9 feet [2.74 m] above finished floor; walls shall be extended to the deck.. Rooms shall not have a suspended ceiling.

Entrance must have a minimum unobstructed area of 48 in [1200 mm] directly in front of the room door.

The Telecommunications / Special Systems Rooms shall be a minimum of 10 feet x 12 feet [3 m x 3.6 m], or as large as the sum of the provided and future systems require, including space for UPS equipment. The Room will have a minimum of 4 each 19 inch racks with vertical wire management. The Room shall be sized for the building head end equipment requirements.

The mixing of coaxial cables, F/UTP, U/UTP, and fiber optic cabling with AC and/or DC power wiring within the cable duct, ladder rack, cable tray, conduit sleeve, conduit, and/or re-enterrable firestop systems is not allowed.

Where the plenum offers space to allow for separate cable trays to be installed the contractor shall provide separate cable tray pathways for the VA OI&T and the FMS cabling. Where space is not available to provide separate cable tray pathways a divider shall be installed every 5 linear feet to provide a separation between the VA OI&T and FMS cabling. Contractor to adhere to the maximum 40% fill ratio for all pathways; the joint cable tray shall provide for a 40% maximum fill in each segment of the jointly shared cable tray pathway.

Where other forms of pathways are used such as non-continuous pathways (IE open-top hook [J-hooks], conduit sleeves, firestop systems) and conduits these shall not be shared by VA OI&T and FMS cabling.

Each wire/cable connection point shall be provided with a connection MDF capability and routes to connect the room's internal wire management system to the facility's TIP system.

Each room shall be provided with (2) two runs of black ladder rack to support incoming cabling; each layer shall be installed around the perimeter of the space. Support the lowest run per manufacturer's written instructions using black with wall mounted brackets. One additional run of 12" ladder rack shall interconnect the lower perimeter run to the equipment racks by running over the top of the racks. This run shall interconnect to the equipment racks

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using a 6” runway extension kit and a 3” top plate. Lower level of ladder racking shall be 12” wide (min) with rungs positioned at 9” OC. The second layer of equipment rack shall be installed at 8’-6” AFF and shall provide for the ingress of the cabling and act as a support for service loops. The 2<sup>nd</sup> layer of ladder rack shall be 18” wide (min) with rungs positioned at 9” OC.

*(16) Lighting*

Provide dedicate circuits for lighting each Telecommunications / Special Systems space. All lights shall be installed at a minimum of 8’ AFF and shall provide at a reading 3’ AFF of 500 LUX (min) on both sides of a fully loaded equipment rack. Lights shall not be interconnected to a movement sensor unless the sensor is positioned so that all sides of the equipment rack are being monitored to prevent the lights from going out while staff are working in the room.

**D. Police, Engineering and Other Designated Control Room(s)**

These rooms shall comply with Paragraph 6.8.2B(2). Telecommunications Equipment Room and Main TR

**6.8.3 VETERANS GUEST ACCESS INITIATIVE:**

**A. INTERNET HOTSPOTS**

Internet Hot-Spots to be provided to patients and family members of patients.

The objectives of this proposal are to provide our patients and their families internet access this network shall be accessible across the entire facility (internally – public WLAN shall be available across all spaces except where radiology is performed; externally - it shall be available in adjacent exterior seating areas).

Provide an infrastructure that must be separate and distinct from the infrastructure being provided for the VA staff used to provide official business functions, applications and data necessary for the operation of the hospital and its clinics. It also must not interfere with wireless infrastructure to be installed which is used for both business functions and medical devices.

WLAN shall conform to the requirements of the IEEE 802.11n as a basis of minimum performance requirements, UON; Lessor shall coordinate the performance characteristics with COR prior to implementation. System shall be completely functional and operating at the time the building is turned over to the VA.

Lessor shall coordinate network filtering to prevent users from visiting inappropriate sites. Filtering Access Control Lists (ACL) must allow for additional blocking as determined by VA policies and procedures. A filter list shall be provided on a regular basis to the Lessor as the need arises since websites may change addresses or new sites may appear from time to time. Lessor shall adjust the running ACLs within 5 business days of the notification by the VA OI&T support team.

Installation will be coordinated with Department of Veteran Affairs OI&T staff to ensure an air-gapped connectivity separate from the medical center’s network. All material used shall be UL

approved and code compliant (NEC) as required for application. Installation shall be in accordance with NFPA and VA requirements.

Lessor shall provide a toll-free telephone support function for users to report problems with the service and resolve those problems in a timely manner. Services must be available during all working hours of the HCC.

Internet service and applicable data circuits shall be paid by the Leaser as identified under utilities.

**B. PERFORMANCE REQUIREMENTS:**

(1) *A wireless survey is not a required component of the initial installation of the WAP WAO placement as the nature of the facility requires that the network as well as the other components of the building be active first to clearly identify the effects of EMI and RFI on the performance of the wireless networks.*

(2) *Contractor shall perform a wireless survey and analysis using a wireless network analyzer (Fluke AirCheck WiFi Tester shall be the basis for design) once the building is active; contractor shall adjust the location of WAPs as identified by the performance reports to bring the system to a 100% effective coverage as noted by the WAP OEM.*

(3) *Provisions for the public WLAN shall include cabling (2) two cables per Wireless Access Point (WAP) WAO), pathways and spaces as well as the associated labor. Active components and configuration to be provided and installed by the Lessor. A 30' grid shall be established during the initial design to facilitate the initial location of the wireless access point work area outlets. Each WAO shall be populated with a double-gang backbox, a double gang plenum rated faceplate with labeling windows, (2) two **Category 6** U/UTP data (color green) cables and the associated 8P8C connectors (color green) for both ends. In the SSR the cables shall terminate in modular patch panels. At the WAO a 20ft service loop shall be provided to allow for fine tuning of the WAP location once the facility's wireless network is activated; in the SSR the service loops shall measure 20 ft in length. All cables shall be labeled and tested per the ANSI/TAI standards. Contactor shall provide all miscellaneous components required to install the WAPs that may not be provided with the manufacturer's component.*

Unless otherwise noted the Lessor shall provide the active components (routers, switches, other WLAN active components, licenses and configurations. All configurations shall be coordinated and approved in writing by the VA OI&T.

Lessor shall maintain and provide accurate instructions for use that can be given to patients and family members.

Lessor shall maintain the system.

Provide a 24 hour/toll free telephone number that provides users a capability to report problems and have problems resolved quickly and efficiently.

Provide a maintenance team that has the capability to troubleshoot and repair system outages within 24 hours.

System Performance: WLAN shall conform to the requirements of the IEEE 802.11n as a basis of minimum performance requirements; Lessor shall coordinate the performance characteristics with COR prior to implementation. System shall be completely functional and operating at the time the building is turned over to the VA.

**6.9 ELEVATORS**

**EDITING NOTE: Revise if elevator calculations or program require greater number or other types of elevators.**

The Lessor shall provide **elevators in two (2)** locations for VA use in all multi-story buildings or in space offered above ground, to provide for full access. One elevator location shall be a three (3) passenger elevator group as described below, the second shall be a service elevator as described below. Elevators shall conform to the requirements of the American Society of Mechanical Engineers A17.1, Safety Code for Elevators, Dumbwaiters, Escalators, and Moving Walks; NFPA 70 (National Electrical Code). Elevators shall meet accessibility requirements. Refer to Paragraph 4.6 OSHA REQUIREMENTS.

Elevators shall be inspected and maintained in accordance with American Society of Mechanical Engineers (A17.2), Inspector's Manual for Elevators.

Passenger and service elevators platforms and entrance doors shall be of size and configuration specified to accommodate VA or ambulance gurneys.

Passenger elevators shall be minimum 33,500 pound capacity with 7'7'-0" wide by 6'-33" deep platform.

Service elevator shall be minimum 4,500 pound capacity with 6'-0" wide by 8'-99" deep platform.

The entrance openings for passenger elevator doors shall be 42 inches wide by 84 inches high. The entrance openings for service elevator doors shall be 48 inches wide by 84 inches high. Doors shall be single-speed center opening, or two-speed side slide.

Provide an autodial system with hands free operation which is activated by the emergency alarm switch or call button in main and auxiliary control panels. The system shall be designed to communicate to a location in the building staffed during all working hours, such as the security office or voice operator. After working hours, the autodial system shall rollover to an emergency number.

The floor covering in the car shall be a non-slip, firm surface which permits easy movement of wheelchairs. Carpet of any kind is not acceptable.

**Emergency Lowering:** Emergency power operation of elevators is not required. Lessor shall provide a backup power source to provide emergency lowering upon loss of normal power as follows. Upon loss of normal power, each elevator shall return to the lowest landing by

activating the down valve. After the elevator has leveled at the lowest landing, provide power to open the car doors automatically. After a predetermined time, the car doors shall close. Power shall stay applied to the door open button so the doors can be opened from inside the elevator only. The elevator shall remain shut down at the bottom landing until normal power is restored. A sign shall be installed on the controller indicating that power is applied to the down valves and door operators during loss of normal power.



**SECTION 7 INTERIOR CONSTRUCTION, FINISHES, AND INTERIOR DESIGN**

**EDITING NOTE: The following section requires careful review and coordination with Schedules B, C, and E.**

**Coordinate casework, cabinets, counters, toilet and shower accessories, lockers, and shelving with Special Requirements Schedule B.**

**Coordinate doors, hardware, partitions, acoustical treatments, flooring, paint and wall coverings, specialties, and furnishings with unit pricing in Schedule C and Room Finish and Door Schedule in Schedule E.**

**7.1 GENERAL**

**7.1.1 SPACE PLANNING AND FUNCTIONAL LAYOUT**

**EDITING NOTE: Use PG-18-12, Satellite Outpatient Clinic/Community-Based Outpatient Clinic Design Guide as basis for room layouts and functional layouts in developing conceptual plans.**

The conceptual floor plan (PART IX) provided in this solicitation shall be used as the basis for the planning and functional layout of the facility. The final layout, design development documents, and construction documents shall be in accordance with Paragraph "Design and Construction Documents After Award" in this solicitation. The completed building shall accommodate VA's space program and interior functional requirements. Offerors are advised that the conceptual plans have been developed using VA Space Planning Criteria and information from VA Outpatient Clinic (SOC/CBOC) Design Guide which may be found at <https://www.cfm.va.gov/til/dGuide.asp>

Lessor shall provide accurate space layout drawings (floor plans) with offer and during design and construction document phases. Plans shall include sufficient information for the Government to compute the net area of each function (room), and to compute Building Gross Area and Net Usable Area in order to determine compliance with solicitation requirements.

**7.1.2 ROOM NUMBERING**

**EDITING NOTE: The basic room numbering system should be established while preparing the conceptual plans to be issued with the SFO. Use**

**second sentence if system has not been established.**

Lessor shall provide room numbers prior to design development for VA approval, in accordance with VA Signage guidelines. The Lessor shall work closely with VA to establish the room numbering system to be used for the facility and electrical panel breaker identification.

**7.1.3 CIRCULATION SYSTEMS**

The conceptual floor plan in this SFO defines the basic elements of the interior circulation systems and their relation to the functional plan within VA occupied space. The Lessor is responsible for the final design of horizontal and vertical circulation systems including building support space and common areas within the building during Design Development as defined in SECTION 3 MISCELLANEOUS above. Lessor shall integrate the design of circulation systems with building entrances, functional elements, wayfinding systems (refer to Paragraph 7.6.2 INTERIOR DESIGN CRITERIA) and signage (refer to Paragraph 7.12 INTERIOR SIGNAGE).

Circulation system components include entrances, lobbies, corridors, and vertical circulation (stairs and elevators).

Refer to Paragraph 3.14 for calculations involving circulation systems in the determination of Rentable and Net Usable Area.

**7.1.4 FLOOR-TO-FLOOR HEIGHTS**

Floor-to-floor heights shall be sufficient to maintain minimum ceiling heights required in this solicitation (see Schedule E) and to install mechanical and electrical systems above the ceiling. Lessor is responsible for coordinating ceiling heights, structural members, space to install mechanical and electrical systems, and floor-to-floor heights (see Paragraph "Submittal Requirements for DD and CD Reviews" for drawings required during design development and construction document phases).

**7.1.5 MATERIALS AND PRODUCTS FOR INTERIOR CONSTRUCTION AND FINISHES**

**A. General**

The Lessor shall use materials and products for interior construction that comply with the minimum requirements specified in this solicitation. Materials not definitively specified in this solicitation shall be manufacturer's or supplier's regular production, first quality, and suitable for commercial use.

**B. Recycled Contents Products**

The Lessor shall comply to the extent feasible with the Resource Conservation and Recovery Act (RCRA), Section 6002, 1976. The Lessor shall use recycled content products as indicated in this SFO and as designated by the U.S. Environmental Protection Agency (EPA) in the Comprehensive Procurement Guidelines (CPG), 40 CFR Part 247, and its accompanying Recovered Materials Advisory Notice (RMAN). The CPG lists the designated recycled content products. EPA also provides recommended levels of recycled content for these products.

The list of designated products, EPA’s recommendations, and lists of manufacturers and suppliers of the products can be found at the [www.epa.gov/cpg/products.htm](http://www.epa.gov/cpg/products.htm) website.

The Offeror, if unable to comply with both the CPG and RMAN lists, shall submit a request for waiver for each material to the Contracting Officer with the pricing submittal. The request for waiver shall be based on the following criteria:

- The cost of the recommended product is unreasonable.
- Inadequate competition exists.
- Items are not available within a reasonable period of time.
- Items do not meet the SFO's performance standards.

**C. Environmentally Preferable Building Products and Materials**

The Lessor shall use environmentally preferable products and materials. The Lessor shall consider the life-cycle analysis of the product in addition to the initial cost.

Refer to EPA's environmentally preferable purchasing website, [www.epa.gov/epp](http://www.epa.gov/epp) and USDA BioPreferred products website, <https://www.biopreferred.gov/BioPreferred>. In general, environmentally preferable products and materials do one or more of the following:

- Contain recycled material, are biobased, are rapidly renewable (10-year or shorter growth cycle), or have other positive environmental attributes.
- Minimize the consumption of resources, energy, and water.
- Prevent the creation of solid waste, air pollution, or water pollution.
- Promote the use of nontoxic substances and avoid toxic materials or processes.

The Lessor shall give preference to materials and products that are extracted and manufactured regionally.

**7.1.6 MENTAL HEALTH**

**EDITING NOTE: refer to Mental Health Design Guide for latest requirements. Outpatient mental health spaces do not have nearly the same security/safety requirements as inpatient care units.**

Design and construct areas to be used by outpatient mental health functions to incorporate the following features.

- Minimize dead ends or blind spots in corridors.

- Maximize visibility from staff stations.
- Place doors in offices where staff will consult with patients so that either patient or staff can exit the room without having to pass by the other to get out. Based on layout, this tends to put the door more in the center of the room.

**EDITING NOTE: Doors to rooms occupied by patients that swing out into the corridor prevent a patient barricading the door but cause a greater hazard to people using the corridor if the door is not in an alcove. Out-swinging doors are not recommended unless they are in an alcove.**

**Determine level of risk and show outswinging doors and alcoves on conceptual plans.**

Patient toilet doors that are in-swinging shall be equipped with hardware that allows them to open out in an emergency.

**EDITING NOTE: Laminated glass is preferred to prevent the glass from being broken if a patient becomes agitated and violent. If budget becomes an issue, the locations for laminated glass may need to be more selective. Tempered glass should be used in all glazing at a minimum.**

**Glazing:** Use laminated (preferred) or tempered glazing materials for all interior and exterior glazed openings in mental health areas.

**7.1.7 SEISMIC DESIGN**

**EDITING NOTE: Include for regions of High and Moderate-High Seismicity as defined in H-18-8.**

Nonstructural elements of buildings shall be designed and constructed to resist damage caused by earthquakes as required by local code and VA *Seismic Design Requirements* H-18-8.

**7.2 PARTITIONS**

**EDITING NOTE: Unless wood framing has a significant cost benefit in the market area, metal studs shall be preferred to avoid issues with warped and out-of-plumb framing that can increase cost and reduce quality of gypsum**

**wallboard finishing. Wood studs may be added if wood framing is allowed for building structure.**

Non-bearing interior partitions shall be capable of supporting equipment and furnishings specified for the clinic. For interior partition framing use minimum 3-5/8 inch, 20-gauge, galvanized metal studs ASTM C645 with fasteners and accessories complying with ASTM C 754. Stud spacing shall be 16-inches on center maximum. For special requirements, use other sizes or systems as appropriate. Where pipe spaces are required, size partition framing thickness to conceal piping. Installation of metal studs shall comply with ASTM C754. Provide support required for equipment, furnishings, and work of other trades.

**EDITING NOTE: Level 5 finish is smooth surface suitable for gloss and semi-gloss paint. Consider less expensive Level 4 and specify desired texture when using low-sheen finishes.**

**Edit list to coordinate with types of wall coverings selected.**

Use 5/8-inch thick gypsum wallboard ASTM C1396, except for special conditions. Use fire resistant Type X or Type C wallboard ASTM C1396 in fire resistant rated assemblies. Use moisture resistant wallboard ASTM C620 at wet locations. Provide accessories, fasteners, and finishing materials in accordance with ASTM C1047, C1002, and C840. Install and finish gypsum wallboard in accordance with ASTM C840. Use Level 5 finish for all occupied areas with paint finish. Provide Level 4 finish for surfaces to receive Type I vinyl wall coverings or ceramic tile. Provide Level 3 finish for surfaces to receive Type II vinyl wall coverings. Provide Level 2 finish in rooms or spaces for which no decorative finish is specified in Schedule E.

Provide fire and/or smoke rated partitions that comply with published UL, FM Global, or IBC designs.

**EDITING NOTE: Use gypsum plaster at locations indicated in PG-18-14. Depending on local trades practices, consider use of alternative materials.**

Extend all layers of gypsum board, on both sides of studs, from floor to underside of structure above on the following partitions:

- Fire rated partitions
- Security partitions (see Paragraph 4.2.4H)
- Smoke barriers
- Sound rated partitions
- Corridor partitions as required by building code

In other locations, extend gypsum board from floor to heights as follows:

- Not less than 6 inches [50150 mm] above suspended acoustical ceilings
- At ceiling of suspended gypsum board ceilings

Use minimum 4-inch solid concrete masonry units for partitions housing service windows of Pharmacy, Agent Cashier, and Credit Union.

Use lead-lined gypsum wallboard for shielding of x-ray rooms. Refer to Paragraph 7.5 below.

**7.3 INTERIOR DOORS**

**7.3.1 GENERAL**

**EDITING NOTE: Select solid core wood or hollow metal interior doors as indicated in Schedule E. Wood is preferred, except for locations where metal is required for functional reasons (see notes for Schedule E and in PG-18-14 for additional guidance).**

Schedule E, "Room Finishes, Door and Hardware Schedule" indicates sizes and types of doors required. Doors shall be of flush design.

Fire rated door and frame assemblies shall comply with NFPA 80.

Acoustical door and frame assemblies shall provide STC rating specified. Submit certified test reports per ASTM E90.

**EDITING NOTE: Do not use wood labeled fire doors in areas where they may be subjected to heavy traffic or hard use, such as by carts, mobile equipment, etc., nor for pairs of opposite swinging doors. In these locations, use hollow metal labeled doors.**

All corridor-to-corridor doors shall have 100 sq. in. glass vision panels and shall swing in opposite directions from each other. Doors in fire partitions and smoke barriers shall have fire-rated glazing vision panels and be held open with electromagnetic holders, except doors which should remain closed for functional reasons or are power operated.

**Interior Stairway Doors:** Provide interior stairway doors with passage latch sets having inside and outside door handles free at all times. Exceptions are where stairway doors are required to be locked to prevent entrance into and elopement from functional departments or areas. Locking shall comply with NFPA 101.

**7.3.2 WOOD DOORS**

**EDITING NOTE: Select species, grade, and cut of veneer; and finish for wood doors.**

Interior wood doors shall be solid core, 1-3/4 inch thick, with face veneers for transparent finish.

Wood doors shall comply with Window and Door Manufacturer’s Association (WDMA) I.S.1-A, Heavy Duty with Type II adhesives.

**7.3.3 HOLLOW METAL DOORS**

Hollow metal doors shall be 1-3/4 inch thick and comply with Standard Duty Doors per Steel Door Institute (SDI) A250.8, Level 1, Model 2; except:

- Security doors (Type 36) shall comply with Extra Heavy Duty Doors SDI A250.8, Level 3, Model 2.
- Detention Doors (Type 22) shall comply with Extra Heavy Duty Doors SDI A250.8, Level 3, Model 2 with core type ‘d’ or ‘f.’

**7.3.4 HOLLOW METAL DOOR FRAMES**

**A. Frames for Hollow Metal Doors**

Hollow metal door frames shall comply with Steel Door Institute (SDI) 250 for type and grade of doors required (Standard, Heavy Duty, or Extra Heavy Duty) and as follows. Frames shall be welded construction; knockdown frames are not allowed. Frames for doors specified to have automatic operators shall be minimum 16-gauge.

**EDITING NOTE: Pre-finished knock-down steel frames (e.g., Timley frames) may be considered for cost savings for use with wood doors. Welded frames are required for use with automatic door operators.**

**B. Frames for Wood Doors**

Hollow metal door frames shall be shop fabricated, pre-finished, site assembled steel frames. Provide fire rated assemblies where scheduled. Fabricate frames from cold rolled steel ASTM A1008, minimum 18-gauge; casings and trim minimum 20-gauge. Prepare frames for door hardware. Provide reinforcements for hardware specified.

Pre-finished frames shall not be used for sound rated doors. Provide frames complying with SDI 114.

Hollow metal door frames shall comply with Steel Door Institute (SDI) 250 for Standard Duty, minimum 18 gauge.

Frames for wood doors specified to have automatic operators shall comply with Steel Door Institute (SDI) 250; shall be welded construction; knockdown frames are not allowed; and shall be minimum 16 gauge.

**7.3.5 VAULT DOOR**

**EDITING NOTE: Include if the Pharmacy program requires a site-constructed vault.**

Provide factory finished vault door complete with frame, hardware, threshold, and day gate.

**EDITING NOTE: Select door swing.**

**A. Door**

Fed. Spec. AA D 600, Class 5, Type IIR (right open swing) Type IIL (left open swing) Style H, (Hand change combination lock),, as indicated on drawings.

**B. Combination Lock**

Fed. Spec. FF-L-2740, Model HC-(Hand change combination), Class FR-(Front reading), Type Y-(Tube type), Size LD-(Large dial).

**C. Day Gate**

Vault door shall have self-closing metal day gate of expanded mesh or solid bars finished to match vault door and frame. Day gate shall be equipped with card reader on both sides of gate as well as emergency release button. Furnish gate with an automatic locking device controlled by key on the outside of gate.

**7.3.6 AUTOMATIC DOORS**

Provide operators which will move the doors from the fully closed to fully opened position in five seconds maximum time interval, when speed adjustment is at maximum setting. Provide key operated power disconnect wall switch for each door installation. Automatic door operators and hardware shall be selected and sized appropriately for the door and frame, and for the type and frequency of traffic anticipated for the opening. Provide controls to open automatic doors from both sides. Equip controls with safety devices for pedestrian protection. Provide door operator controls and equipment that are easily accessible for maintenance.

Swing door operators shall be of institutional type, door panel size 2'-0" to 5'-0" width, weight not to exceed 600 pounds, electric operated for overhead mounting. Furnish metal mounting supports, brackets, and other accessories necessary for the installation of operators at the head of the door frames. The motor on automatic door operator shall be provided with an interlock so that the motor will not operate when doors are locked. Operators shall have checking mechanism providing cushioning action at last part of door travel, in both opening and closing cycle. Operators shall be capable of recycling doors instantaneously to fully open position from any point in the closing cycle when control switch is activated. Operators shall, when automatic power is interrupted or shut-off, permit doors to easily open manually without damage to automatic operator system.



Sliding doors shall have electric operators. Assembly shall be single or bi-parting sliding doors as shown on conceptual drawings. Doors shall be opened by electric motor pulling door from closed to open position and shall stop door by electrically reducing voltage and stalling door against mechanical stop. System shall permit manual control of door in event of power failure. Opening and closing speeds shall be adjustable. In compliance with NFPA-101, all door panels shall allow "breakout" to the fully open position to provide instant egress at any point in the door's movement.

Single use Public Restrooms indicated on the drawings shall have automatic door operators. Provide ON/OFF hold open switch. Provide a separate F19 privacy lock with dead bolt.

For interior doors other than restrooms, automatic door operators shall be activated by two (2) each hard wired push plates or card readers with one located on each side of the door(s). Provide ON/OFF hold open switch. If doors are located in a rated wall, provide components and accessories to the automatic door operator as required to provide positive latching as required by the NFPA.

**EDITING NOTE: Select opening speed required considering frequency and volume of traffic.**

Automatic doors are required at locations indicated in the conceptual drawings and Schedule E.

**7.3.7 FINISH HARDWARE**

Comply with requirements specified in "Room Finishes, Door and Hardware Schedule" in Schedule E for door hardware, hardware sets, and installation methods.

**7.3.8 DOOR IDENTIFICATION**

Special door identification for handicapped accessibility and hazard warning signs shall be installed at all necessary interior room doors. The forms and locations of door identification must comply with Paragraph 7.12 INTERIOR SIGNAGE. Doors leading into hazardous areas that might prove dangerous to a blind person shall be made quickly identifiable to the touch by knurling, roughening, or applying an abrasive coating to the surface of the knob, door handle, pull, or other hardware. Tactile warning indicators shall not be provided for emergency exit doors.

**7.4 NOISE TRANSMISSION CONTROL**

**7.4.1 GENERAL**

**EDITING NOTE: Insert Use Door Types 19 and 20 with mechanical seal at entrances to spaces where noise suppression or speech privacy is a**

**requirement. Refer to Schedule E and VA PG-18-4 NCS Standard Details.**

**Where rooms do not contribute to or are not affected by sound transmission from an adjacent space, conventional construction is satisfactory.**

Provide sound-resistant construction at the rooms and areas listed in paragraphs below. Submit details of sound resistant construction with Second Design Development Submittal. Include test reports for designs or systems to be used. Construct partition, ceiling, and floor systems to provide necessary performance. Special attention shall be given to prevent possible flanking paths for noise transmission. Verification of noise transmission control shall be included in building commissioning.

Sound damping in meditation rooms, quiet rooms, and similar areas shall be provided by finish materials shown for these areas in Schedule E, "Room Finishes, Door, & Hardware Schedule."

Where an area generating unusual noise or vibration is located adjacent to occupied spaces, the Lessor's A/E shall obtain the services of a professional acoustical consultant to design the sound suppression measures required to produce a comfortable working environment in the adjacent spaces.

**7.4.2 SOUND TRANSMISSION CLASS (STC) 45**

The sound resistant enclosures (partitions, doors, duct system) of the spaces listed below shall be designed to suppress generated noise and provide a satisfactory degree of acoustical isolation for adjacent occupied spaces. A minimum Sound Transmission Class (STC) rating of 55 shall be achieved.

**EDITING NOTE: Delete rooms or areas not required. Expand list if required for project conditions.**

- A/C and other mechanical equipment rooms
- Emergency generator rooms
- Multipurpose Rooms and Group Rooms
- Mental Health Group Therapy rooms

**7.4.3 SOUND TRANSMISSION CLASS (STC) 40**

The sound resistant enclosures of the following spaces shall be designed to assure speech privacy and achieve an STC rating of 40.

**EDITING NOTE: Delete rooms or areas not required. Expand list if required for project conditions.**

- Conference rooms
- Consultation offices

Examination and treatment rooms  
Individual offices in Mental Health and Behavioral Sciences Service  
Audiology and Speech Pathology areas  
Benefits Counselors

**7.5 X-RAY RADIATION SHIELDING AND RADIOGRAPHIC ROOMS**

**7.5.1 X-RAY RADIATION SHIELDING**

**A. General**

Provide shielding against radiation from x-ray equipment. When required by State or Local jurisdictions, obtain the services of a physicist approved by the American Board of Radiology in accordance with the appropriate standards and regulations of the National Council on Radiation Protection and Measurements (obtainable from NCRP Publications; 7910 Woodmont Avenue, Suite 400; Bethesda, MD; 20814) to design, specify, and test the level of radiation protection required.

State the prescribed shielding in terms of millimeters of lead or in inches of wall, ceiling, floor, and door construction of equivalent protection thickness. Post a certificate, stating the lead equivalent protection of each surface, in all rooms with radiation shielding.

**B. Lead Lined Doors and Frames**

Lead lining of frames, doors and other items occurring in partitions shall provide an x-ray absorption equivalent to that of partitions in which they occur.

*(1) Lead Lined Wood Doors*

- Use flush veneered construction.
- Face veneers shall be same species and grade as used for other wood doors in the project.
- Construct doors of two separate solid wood cores with a single sheet of lead lining through center.
- Extend sheet lead lining to all door edges, providing x-ray absorption equal to partition in which door occurs.
- Fasten wood cores together with either countersunk steel bolts through lead with bolt heads and nuts covered with poured lead, or with poured lead dowels.
- Finish face of dowels and lead covering of bolt heads and nuts flush with wood cores.
- **Edge strips:** Use same species of wood as face veneer.
- Minimum thickness shall be 1-1/2 inches at top edge and 2-1/2 inches at bottom edge.
- Extend vertical edge strips full height of door and bevel 1/8-inch for each two inches of door thickness.

Hardware for lead lined doors is specified in Schedule E. Make total thickness of sheet lead used for lining hardware equivalent to thickness of sheet lead core of door.

**7.5.2 DESIGN FOR RADIOGRAPHIC EQUIPMENT**

**EDITING NOTE: If specific equipment to be used is not determined prior to issue of the SFO, VA must decide whether to use the "generic" room; or "shell" the rooms. Lessor should provide unit costs for work to facilitate adjustments to final build-out based on actual equipment obtained. Coordinate requirements with Schedule B for special equipment and Schedules C and E for unit costs and finishes.**

**Use following paragraph if VA has decided on "shell" option.**

Rooms containing radiographic equipment shall be designed to be shelled in and finish work scheduled for completion as late as possible in the construction process.

**EDITING NOTE: Use following paragraph if VA has decided on "generic" option.**

**COORDINATE with conceptual drawings. Show requirements based on VA PG-18-4 NCS Standard Details**

Rooms containing radiographic equipment shall be designed for a generic installation system that can accept and accommodate all vendors' radiology equipment (DOD/VA Universal X-Ray (R-F) Room). Design and construct room(s) in accordance with requirements shown on conceptual drawings.

**EDITING NOTE: Following paragraphs apply to both options. Coordinate with Schedules B and C.**

The structural support for overhead radiology equipment shall be designed such that movement of the radiology equipment ceiling-mounted support rails shall not exceed 0.2 in [5 mm] in any direction.

For a list of work items and materials required for the completion of rooms with radiographic equipment, refer to Schedules B and C of this solicitation. The Lessor will be required to provide unit costs for these items.

**7.5.3 SPECIAL X-RAY CONTROL ROOM REQUIREMENTS**

Provide single pane viewing windows of conventional lead glass for x-ray control rooms. Where the control room projects into and is located near the corner of the diagnostic x-ray room, the projecting control room partition shall have a portion of wall angled toward the x-ray work space. Locate the viewing window in this angled section.

To allow for clearance for x-ray tube crane travel, do not exceed a height of 7' 6" above the floor for that portion of the shielded partition of a control room which projects into a diagnostic x-ray room. Feed all electric service, located in or on the projecting control room partition, up from the floor or horizontally from the wall where the control room projects. Leave the space above the projecting control area clear to allow x-ray equipment to traverse. Furnish and install "X-Ray in Use" signs above the doors that switch to "on" automatically when equipment on.

**7.6 INTERIOR FINISHES**

**7.6.1 GENERAL**

Interior finishes are prescribed in "Room Finishes, Door and Hardware Schedule" in Schedule E of this Solicitation. VA must review and approve any deviation from this document prior to start of final construction documents.

The Interior Design concept and materials, finishes, colors, patterns and textures must be approved by the Contracting Officer. Submit sample boards for review and approval by Contracting Officer with 75% construction documents (Paragraph 3.20.3).

Finish materials, including vinyl wall covering, vinyl composition tile flooring, sheet vinyl, carpet, and ceramic wall and floor tile finish, as specified herein, shall be included in the rental rate. An estimate of base quantities of finish material that should be included in the proposed rental rate is indicated on Schedule C in this solicitation. Adjustments will be made at the end of the construction based on actual measurement. Payment will be made per the pre-negotiated unit cost for these items.

**7.6.2 INTERIOR DESIGN CRITERIA**

**A. Goal**

To provide a supportive interior environment that is conducive to healing both the patient's mind and body, is respectful of the public monies, promotes staff performance, and expresses progressive high quality design.

**B. Concept**

The design is to pivot from the facility's mission and its patient profile. This includes a working knowledge of the profile and characteristics of the veteran as a patient population and the distinct profile of the users of said facility and said project. VA patients are often long-term, high repeaters with multi-medical problems. Each user group will reveal the degree of need for the design to address aging, physical and mental disabilities, abusiveness, loss of function and perceptual ability.

**C. Function**

Functional requirements dictate maintainable colors, textures, patterns, material selections, combination of materials, and installation techniques. Materials must be chosen for longevity and good appearance retention.

**D. Signage and Wayfinding**

A "wayfinding" process needs to be designed into every project. Patients, visitors, and staff need to know where they are, what their destination is, how to get there, and how to return to their origination point. Identification, personalization of occupied spaces, and orientation are all to be addressed in the design. Wayfinding is to be thought of broadly as building elements, color, texture, and pattern cues, as well as a coordinated set-up for separate contacted signage and artwork.

**E. Guidelines**

Design attention shall be given to all spaces. Areas which could initiate the design may be the lobby or administrative suite, but extensions of the same quality and variety are required for the corridors, staff areas, and patient areas. The design must offer a distinctive and clear lead for the planning and selecting of interior furnishings. Designs that narrow choices of procurement furnishings are inappropriate. A working understanding of the limits of government sources is to be considered. This consideration will produce a good environment for the furnishings.

Designs that use "lifetime of the building" materials in colors, patterns, and designs that transcend time are endorsed. Trendy colors and patterns are to be restricted to cycle replacement materials, such as paint and wall coverings.

**7.7 CEILINGS**

**7.7.1 ACOUSTICAL CEILINGS**

**EDITING NOTE: Select heavy duty suspension system for areas with high or very high seismicity.**

**Except for specific areas requiring special treatment, all suspended acoustic tile ceilings shall be 2 foot by 4 foot lay-in panels in a standard 15/16-inch grid. COORDINATE with Schedule E.**

Ceiling suspension system shall be heavy-duty system. Provide aluminum suspension system in Canteen kitchen.

Acoustical units shall be mineral fiber units that provide a noise reduction coefficient (NRC) of at least 0.55 and a ceiling attenuation class (CAC) rating of at least 33. Provide units with manufacturer's standard white painted finish, except provide membrane faced (mylar) units in kitchen and other locations scheduled for non-absorbent, scrubbable finish. Ceiling units shall have a flame-spread of 25 or less and a smoke development rating of 50 or less (ASTM E-84).

**7.7.2 CUBICLE CURTAIN TRACKS**

**EDITING NOTE: Coordinate locations and quantities of cubicle tracks with Schedule B and conceptual drawings.**

Provide cubicle curtain tracks with carriers and hooks in exam rooms and other locations indicated in Schedule B for privacy.

Provide surface-mounted tracks of extruded aluminum, ASTM B221, alloy 6063, temper T5 or T6, channel shaped, with smooth inside raceway for curtain carriers. End stop connectors, ceiling flanges and other accessories shall be fabricated from the same material with the same finish as the tracks or from nylon.

Curtain carriers shall be nylon or delrin, with either nylon or delrin wheels on metal, delrin, or nylon axles. Equip each carrier with either stainless steel, chromium-plated brass or steel hooks with swivel, or nickel chromium-plated brass or stainless steel bead chain and hook assembly. Alternatively, delrin carriers may have molded-on delrin hooks. Hook for bead chain may be the same material and finish as the bead chain or may be chromium-plated steel. Provide 2.2 carriers for every foot (or fraction thereof) of each section of each track length, plus one additional carrier.

At end of each section of track, make provision for insertion and removal of carriers. Design to prevent accidental removal of carrier. Any operating mechanism shall be removable with common tools.

VA will supply and maintain fabric cubicle curtains.

**7.8 FLOORING**

An estimate of base quantities of each type of flooring that should be included in the proposed rental rate is indicated in Schedule C. Adjustments will be made at the end of the construction based on actual measurement and payment will be made per the pre-negotiated unit cost for these items.

Flooring material specifications and installation methods shall conform to the requirements of this SFO and referenced national standards. Under floor concrete must be smooth and level. Patching and leveling compounds containing gypsum are prohibited. When floor coverings are newly installed or changed, samples must be approved in advance by the Contracting Officer.

Unless other material is scheduled for a room or area, perimeter base shall be rubber or vinyl complying with ASTM F1861. Base shall be 1/8-inch thick, 4 inches high with molded top. Style B (cove) shall be used throughout.

**7.8.1 MEMBRANE WATERPROOFING AT INTERIOR FLOOR DRAINS**

Provide membrane waterproofing under floor finishes surrounding floor drains in areas subject to wet conditions to prevent water and moisture from penetrating the underlying floor slabs and damaging the finishes and contents of the rooms or spaces below. Attach the membrane waterproofing to the floor drain by a clamp, extend outward from the floor drain under the entire area of the surrounding floor finish surface or concrete topping which slopes toward the floor drain or which is subject to surface water, and carry up abutting vertical surfaces at least 3 in [76.2 mm].

Do not provide membrane waterproofing if either:

- The floor slab is placed on grade.
- The floor finish itself is latex mastic with waterproofing membrane.

**7.8.2 FLOOR SLAB DEPRESSIONS**

Floor slab depressions are required in specific areas or rooms for the purpose of providing slopes in floors to:

- Direct water into drains.
- Provide for special floor finishes that require a setting bed like CT
- Provide for equipment installation (including Audiology Booths)
- Elevator Machine Room (4-inch depression)
- In-floor scales
- Entry way pads

It is the responsibility of the Lessor to ensure that depressions are provided to suit the actual finishes and equipment provided, and to satisfy the actual conditions required by the design.

Liquid applied water proofing shall be latex based water proofing membrane, ANSI A118.10; ready to use liquid latex compatible with Cement Backer Boards and tile setting mortars. Reinforcing fabric shall be alkali-resistant glass fiber. Final Performance shall be as follows in conformance with ANSI A118.10:

Waterproofing ability (ASTM D 4068)	Conforms (no water penetration)
Seam strength and breaking strength (ASTM D751)	Conforms (no water penetration)
Seam strength and breaking strength (ASTM D751)	Conforms
Dimensional stability (ASTM D1204)	Conforms
Shear strength to ceramic tile (ASTM C482)	Conforms
Fungus and microorganism resistance (ASTM G21-96)	Conforms

**7.8.3 FLOORING, CERAMIC TILE**

Unglazed ceramic mosaic tile shall be used in all toilets and other areas specified in Schedule E. Provide slab depressions, setting beds and waterproof membrane per Paragraph 7.8.2.

Provide quarry tile in areas designated in Schedule E.



Comply with ANSI A137.1, Standard Grade, and as follows. Coefficient of friction, when tested in accordance with ASTM C1028, shall provide the following level of performance:

- Not less than 0.7 (wet condition) for bathing areas.
- Not less than 0.8 on ramps for wet and dry conditions.
- Not less than 0.6 for wet and dry conditions for other areas.

**7.8.4 FLOORING, VINYL TILE AND SHEET VINYL**

**A. Vinyl Composition Tile**

Vinyl composition floor tile (VCT) ASTM F1066, Composition 1, Class 2 (through pattern), 1/8-inch thick, 12 inches square, shall be provided at locations in Schedule E.

**EDITING NOTE: Include flash cove if required for project conditions.**

**B. Resilient Sheet Flooring**

Resilient Sheet Flooring (RSF) shall be provided at locations listed in Schedule E. Rooms to receive RSF shall have 6-inch integral cove base (flash coving). RSF shall conform to ASTM F1913 and material requirements specified in ASTM F1303 for sheet vinyl flooring, Type II, Grade 1, backing classification not applicable. Foam-backed sheet flooring is not acceptable. Use smooth face, minimum thickness nominal 0.08 inch. Provide maximum size sheet material produced by manufacturer to provide minimum number of joints; minimum width acceptable 48 inches. Each color and pattern of sheet flooring shall be of same production run.

**C. Welded Seam Sheet Flooring**

Welded Seam Sheet Flooring (WSF) shall be provided at locations listed in Schedule E. Rooms to receive WSF shall have 6-inch integral cove base (flash coving). WSF shall conform to ASTM F1303 for sheet vinyl flooring, Type II, Grade 1, except for backing requirements. Flooring shall be homogeneous through full thickness; backed sheet flooring is not acceptable. Minimum nominal thickness is 0.08 in [2 mm]; minimum width, 6 feet [18 m]. Each color and pattern of sheet flooring shall be of same production run. Welding rod shall be product of floor covering manufacturer; color of welding rod shall match field color of sheet vinyl.

**7.8.5 FLOORING, RUBBER**

**EDITING NOTE: Include if rubber flooring is required in stairs or functional areas.**

Rubber tile shall conform to ASTM F1344, Class 1, homogenous rubber tile, through mottled, 24 inches square, thick; color and pattern uniformly distributed throughout tile. Molded pattern wearing surface base thickness shall be 1/8-inch thick. Where rubber tile is used, provide tiles with a minimum of 90% post consumer rubber.

Resilient treads shall conform to Fed. Spec. RR-T-650, Composition A, Type 2,-3/16 inch thick on wear surface tapering to 1/8-inch thick at riser end. Nosing shape shall to conform to sub-tread nosing shape.

**EDITING NOTE: Use for stair landings.**

Sheet rubber flooring shall conform to ASTM F1344, F1859 or F1860, 36 inches wide, 1/8-inch thick, patterned face, material by the same manufacturer as the rubber treads, color and pattern to match treads. Provide rubber flooring made with a minimum of 90% consumer rubber where possible.

**7.8.6 FLOORING, LATEX MASTIC**

**EDITING NOTE: This section specifies seamless, trowel-applied flooring. Delete if not required.**

Traffic-bearing, trowel-applied, vinyl resin, neoprene resin, or polyacrylate resin flooring system, latex mastic (LM) shall be provided at locations listed in Schedule E. A reinforced elastomeric waterproof membrane is not required for slab-on-grade installations of latex mastic.

**A. Latex Mastic Flooring**

Mil. Spec. MIL D 3134, Type II.

**B. Waterproof Membrane**

Shall consist of a neoprene emulsion or elastomeric polyurethane resin reinforced with fiberglass net or cloth.

**7.9 WALL COVERINGS**

Walls shall be covered in accordance with "Room Finish Schedule" in Schedule E, or other requirements of this Solicitation. An estimate of base quantities of each type of wall covering that should be included in the proposed rental rate is indicated in Schedule C. Adjustments will be made at the end of construction based on actual measurement and payment will be made per the pre-negotiated unit cost for these items. Colors and patterns shall be as selected or approved by the Contracting Officer.

**7.9.1 CERAMIC WALL TILE**

Ceramic wall tile shall be glazed tile. Ceramic tile at showers and wet locations shall be installed over cement backer board or Portland cement mortar on metal lath.

Comply with ANSI A137.1, Standard Grade; cushion edges; matte glazing. Trim shapes shall conform to applicable requirements of adjoining floor and wall tile. Provide cove and bullnose shapes where shown, and required to complete tile work.

Cementitious backer units shall comply with ANSI A118.9.

**A. Vinyl Wallcovering (W)**

Vinyl wall covering shall comply with CFFA-2575. Fungi-resistance rating shall be 0 in accordance with ASTM G21. Provide factory-applied clear delustered polyvinyl-fluoride (PVF) coating minimum 1/2 mil [0.0125 mm] thickness. Do not include PVF coating weight in minimum total weight. Fire hazard classification with PVF coating shall be Class A.

**EDITING NOTE: Select type(s) required.**

Type II (Medium Duty) .

Adhesive shall be vermin and mildew resistant.

**B. Protective Wallcovering (WP)**

**EDITING NOTE: Review extent of protective wall covering (rigid PVC) and wall guards (bumper rails). Consider types and severity of anticipated use by carts, wheelchairs, mobile equipment, furniture, etc. in decision on type of protection to be used.**

Wainscot of rigid PVC protective wall covering (WP) shall be installed on walls in corridors and other locations in accordance with Schedule E.

Provide rigid, embossed, impact-resistant protective wallcovering of PVC plastic sheets or roll stock. Material shall have following minimum properties: Thickness: 0.060 inch; Roll Width: 48 inches [1200 mm]; or Sheet Size: 48" x 96" [1200 mm x 2400 mm]; Flame/Smoke Ratings: ASTM E 84, Class A; Flame Spread 0-25; Smoke Developed 0-450. Provide accessories: color matched rigid vinyl moldings and trim; acrylic latex primer/sealer, and mildew-resistant adhesives and caulk. Materials shall be cadmium and mercury free.

**7.9.2 MAINTENANCE AND REPLACEMENT**

All wall covering is to be maintained in "like new" condition for the life of the lease. Wall covering must be replaced or repaired at the Lessor's expense, including moving and replacing furnishings (except where wall covering has been damaged due to the negligence of VA), anytime during the occupancy by VA if it is torn, peeling, or permanently stained. Ceramic tile must be replaced or repaired if it is loose, chipped, broken, or permanently discolored. All repair and replacement work is to be done after working hours.

**7.10 PAINTING**

**A. General**

Painting shall include field application of paints, stains, epoxies, and other coatings for surfaces and materials not supplied with factory finish or otherwise pre-finished. Painting includes shellacs, stains, varnishes, coatings specified, striping or markers, and identity markings. Wall surfaces shall be painted throughout, except where wall coverings per Paragraph 7.9 above are called for in "Room Finish Schedule" in Schedule E.

Immediately prior to VA occupancy, all surfaces designated by VA for painting must be newly painted in colors acceptable to VA. At a minimum, all painted surfaces including public areas must be repainted after working hours at the Lessor's expense every three (3) years. This includes moving and replacement of furniture.

Paint and sprayed on construction components such as, but not limited to, insulation shall not be applied to Telecommunications Structured Cabling System (SCS) components (pathways, backboxes, cabling, termination components, etc.), unless otherwise noted on the Technology sheets and the Division 27 specifications.

**B. Submittals**

Before work is started, or sample panels are prepared, submit manufacturer's literature indicating brand label, product name, and product code as of the date of contract award. Each coating system is to be from a single manufacturer. All coats on a particular substrate must be from a single manufacturer.

**Sample Panels:** After painters' materials have been approved and before work is started, submit sample panels showing each type of finish and color specified. Panels to show color shall be composition board, 4 inch x 10 inch x 1/8 inch [101.6 mm x 254 mm x 3.175 mm]; Panels to show transparent finishes shall be wood of same species and grain pattern as wood approved for use, 4 inch x 10 inch face x 1/4 inch [101.6 mm x 254 mm x 6.35 mm] thick minimum.

**C. Products**

Provide the best quality grade of the various types of painting materials and coatings as regularly manufactured by acceptable paint manufacturer. Materials not displaying the manufacturer's identification as a standard, best-grade product will not be acceptable. Paint products of the following manufacturers are acceptable:

**EDITING NOTE: Edit list for locally available paint manufacturers**

- Dunn-Edwards
- Frazee
- ICI
- Sherwin-Williams

Use primers with pigment and vehicle recommended by top coat manufacturer as compatible with substrate and finish coats specified. Use only thinners approved by the paint manufacture and use only within recommended limits.

Use ready-mixed (including colors), except two component epoxies, polyurethanes, polyesters, paints having metallic powders packaged separately, and paints requiring specified additives.

Paint materials shall conform to the restrictions of the local Environmental and Toxic Control jurisdiction. Volatile Organic Compounds (VOC) content of paint materials shall not exceed

local, state or district requirements. Lead-base paints shall not be used. Materials shall not contain asbestos, zinc-chromate, strontium-chromate, cadmium, mercury or mercury compounds, or free crystalline silica. Materials shall not contain any of the ACGIH-BKLT and ACGHI-DOC confirmed or suspected human carcinogens.

**D. Application**

Unless otherwise specified, apply paint in three coats: prime, body, and finish. When two coats applied to prime coat are the same, the first coat applied over primer is body coat and the second coat is the finish coat. Apply each coat evenly and cover substrate completely. Finish surfaces to show solid even color, free from runs, lumps, brushmarks, laps, holidays, or other defects.

**E. Paint Schedule**

**EDITING NOTE: Edit list as required for project conditions.**

**Specify gloss level(s) required for each material.**

Gypsum Wallboard, except where epoxy coating (SC) is required:

- 1 coat primer sealer applied prior to texturing
- 1 coat pigmented sealer/primer
- 2 coats acrylic latex enamel low luster

Gypsum Wallboard epoxy coating, (SC):

- 1 coat primer sealer
- 2 coats waterborne epoxy semi-gloss

Ferrous and Galvanized Metal:

- 1 coat vinyl acrylic primer or vinyl pre-wash primer (if not factory-primed)
- 2 coats acrylic latex enamel semi-gloss

Wood – Transparent Finish:

- Provide hand-wiped stained finish, water-based, clear acrylic, premium grade semi-gloss and color as selected
- Stain
- 2 coats clear finish

**7.11 HANDRAILS, WALL GUARDS AND CORNER GUARDS**

An estimate of base quantities of each type of handrail, wall guard, and corner guard that should be included in the proposed rental rate is indicated in Schedule C. Adjustments will be made at the end of the project based on actual measurement and payment will be made per the pre-negotiated unit cost for these items.

Stainless steel shall conform to ASTM A167, Type 302B. Extruded aluminum components shall conform to ASTM B221, Alloy 6063, Temper T5 or T6. Resilient materials shall be extruded and injection molded acrylic vinyl or extruded polyvinyl chloride meeting following requirements:

- Minimum impact resistance of 2150 ft-lbs [200 Nm] (when tested in accordance with ASTM D256 (Izod impact, ft-lbs per inch notch).
- Class 1 fire rating when tested in accordance with ASTM E84, having a maximum flame spread of 25 and a smoke developed rating of 450 or less.
- shall be rated self extinguishing when tested in accordance with ASTM D635
- Material shall be labeled and tested by Underwriters Laboratories or other approved independent testing laboratory.

Provide resilient materials with integral color with all colored components matched in accordance with SAE J 1545 to within plus or minus 1.0 on the CIE LCH scales.

**7.11.1 HANDRAILS AND WALL GUARDS**

**EDITING NOTE: Review extent of protective wall covering (rigid PVC) and wall guards (bumper rails). Consider types and severity of anticipated use by carts, wheelchairs, mobile equipment, furniture, etc., in decision of type of protection to be used.**

Except in administrative areas, provide handrails and wall guards on both sides of all corridors. Provide chair rail at locations indicated in Schedule C. Provide continuous reinforcing in the wall attachment of handrails and bumper guards.

Handrail/Wall Guard Combination shall consist of snap-on covers of resilient material, minimum 0.078-inch thick, free-floated on a continuous, extruded aluminum retainer, minimum 0.072-inch thick, anchored to wall at maximum 32 inches on center.

Wall Guards (Crash Rails) shall consist of snap-on covers of resilient material, minimum 0.110-inch thick, free-floated over a continuous extruded aluminum retainer, minimum 0.090-inch thick anchored to wall at maximum 24 inches on center.

**7.11.2 CORNER GUARDS**

Resilient, shock-absorbing corner guards shall be surface mounted 1-1/4 inch [31.75 mm] radius ¼-inch [6.35 mm] corner . Snap-on corner guards shall be formed from resilient material, minimum 0.078-inch [1.98 mm] thick, free floating on a continuous 0.063-inch thick extruded aluminum retainer. Provide appropriate mounting hardware, cushions and base plates as required. Provide factory fabricated end closure caps at top and bottom of surface mounted corner guards.

Surface mounted corner guards shall full height and extend from top of resilient base to underside of ceiling.

Stainless steel corner guards shall be fabricated of 0.0625 inch [1.59 mm] thick stainless steel. Stainless steel corner guards shall be surface mounted, with 3-inch [76-mm] wings and radius ¼-inch [6.35 mm] corner..

**EDITING NOTE: Edit list of locations to meet project requirements. Alternatively, extent of corner guards required may be shown on the concept drawings.**

**A. Resilient and Corrosion Resisting Metal Guards**

Provide resilient or corrosion-resisting metal corner guards for the external corners of finished interior walls and columns in the paths of wheeled traffic as indicated below. Use surface applied full height resilient-type corner guards on gypsum wallboard walls. Use corrosion-resisting-metal corner guards on masonry or ceramic tile walls. Corner guards are not required in corridors where continuous handrails and bumper guards are used around external corners.

Corridors of:

- Ambulatory Care and Clinical Areas
- Warehouse and Receiving Areas

Areas of:

- Cart Storage
- Pharmacy
- Supply Processing and Distribution
- Food Preparation and Storage
- Service Elevator Lobbies
- Warehouse and Receiving

**B. Structural Steel Angle Guards**

Provide structural steel angle guards, protected from corrosion by painting or galvanizing, for use in corridors and areas of:

- Warehouse and Receiving

Provide structural steel angle guards, protected from corrosion by painting or galvanizing, for exterior use in the paths of motor vehicle traffic to the receiving platform (loading dock) and at exposed corners on the platform.

**7.12 INTERIOR SIGNAGE**

**EDITING NOTE: In order to maintain continuity in appearance with VA facilities nationwide, it is**

**important that signage conform to VA Signage Design Guide.**

Lessor shall develop and submit a signage plan for review and approval by the Contracting Officer during design development. Interior signage systems shall include identification, directional, informational, and code required signage. The Lessor shall furnish and install interior signs for all rooms, areas, conditions or features in the facility. Comply with accessibility standards listed in Paragraph 4.6 of this solicitation. For informational purposes, Offerors are advised that VA has an established signage program, VA Signage Design Guide, which may be found at <http://www.cfm.va.gov/til/spclRqmts.asp>.

**7.13 BUILT-IN WORK**

**7.13.1 CASEWORK AND COUNTERTOPS**

Type(s), quantities and locations of plastic laminate casework and countertops shall be per Schedule B and as shown on conceptual plans.

Special counter tops (wood, stainless steel, chemical resistant laminate, or epoxy) shall be provided as indicated in Schedule B.

**EDITING NOTE: Following is for plastic laminate covered modular casework. Edit or insert other types as required for project.**

**A. Casework Cabinets and Shelving**

Casework shall be of the flush overlay design and, except as otherwise specified, be in conformance with AWI 1600, Modular Cabinets. Fabricate casework of plastic laminated covered particleboard.

- Plastic laminate shall conform to NEMA LD-3
- Exposed vertical surfaces including both sides of cabinet doors shall be high pressure laminate Type VGS (0.28)
- Cabinet interiors including shelving shall comply with NEMA, LD3.1 at a minimum: high pressure cabinet liner Type CLS (0.20), OR thermally fused melamine laminate.
- Backing (concealed surfaces) shall be high pressure backer Type BKH (0.28).

Core materials shall be as follows:

- Particleboard up to 7/8 inch [22.22 mm] thick shall be Industrial Grade average 47-pound density particleboard, ANSI A 208.1, M-3.
- Particleboard 1 inch [25.4 mm] thick and thicker shall be Industrial Grade average 45-pound density particle-board, ANSI A 208.1, M-2.
- Moisture Resistant Particleboard shall be average 47-pound density particleboard, ANSI A208.1, M-3.
- Medium Density Fiberboard 1/4 inch thick shall be average 54-pound density grade, ANSI A208.2.



Edging materials shall be 1 mm PVC banding, machine applied, and 3 mm PVC banding, machine applied and machine profiled to 1/8 inch radius.

Exposed hardware, except as otherwise specified, shall be satin-finished chromium-plated brass or nickel plated brass.

Hinges shall be fabricated of minimum 0.072-inch [1.83-mm] thick chromium-plated steel leaves, with minimum 0.139-inch [3.53-mm] diameter stainless steel pin. Hinges shall be five knuckle design with 2-1/2 inch [63.5 mm] high leaves and hospital type tips. Doors 36 inches [914.4 mm] and more in height shall have three hinges, and doors less than 36 inches [914.4 mm] in height shall have two hinges. Each door shall close against two rubber bumpers.

Door catches shall be friction or magnetic type, fabricated with metal housing. Provide one catch for cabinet doors 48 inches [1200 mm] high and under, and two for doors over 48 inches [1200 mm] high.

Locks shall be cylinder type, 5 pin tumbler, cam style lock with strike. Acceptable locks for 3/4-inch [19 mm] thick doors include: National #M2-3708-157 lock and National #M2-3709-100 with strike. Provide two keys for each lock. The name of the manufacturer, or trademark by which manufacturer can readily be identified, shall be legibly marked on each lock, the key change number shall be marked on the exposed face of lock, and also stamped on each key. Key change numbers shall provide sufficient information for replacement of the key by the manufacturer.

Drawer and door pulls shall be flush pulls fabricated of ABS plastic.

Drawer slides shall be full extension, 150-pound [68-kg] load rated epoxy coated steel with nylon, ball bearing rollers, with positive stop both directions.

**B. Countertops**

**EDITING NOTE: Following includes plastic laminate, Corian<sup>R</sup>, stainless steel, epoxy, and solid maple. Edit or delete or insert other types as required for project.**

Plastic Laminate (HPDL) shall conform to NEMA LD 3. Decorative surfaces shall be either:

- **Horizontal:** High-pressure decorative laminate type HGS (.048)
- **Post forming:** High-pressure decorative laminate type HGP (.039)

Concealed backing sheet shall be high-pressure backer BKH (.048) or (.039) to match exposed faces.

Chemical-resistant plastic laminate, NEMA LD3 types HGS or HGP.

**Test for resistance to reagents as follows:** Test with five 0.25 mil drops remaining on surface for 16 hours followed by washing off with tap water, then cleaned with liquid soap and water, dried with soft cotton cloth and then cleaned with naphtha. There shall be no change in color, surface texture, and original protectability remaining from test results of following reagents:

98% Acetic Acid	Butyl Alcohol	Acetone
90% Formic Acid	Benzine	Chloroform
28% Ammonium Hydroxide	Xylene	Carbon Tetrachloride
Zinc Chloride (Sat.)	Toluene	Cresol
Sodium Carbonate (Sat.)	Gasoline	Ether
Calcium Hypochlorite (Sat.)	Kerosene	Cottonseed Oil
Sodium Chloride (Sat.)	Mineral Oil	40% Formaldehyde
Methyl Alcohol	Ethyl Acetate	Trichlorethylene
Ethyl Alcohol	Amyl Acetate	Monochlorobenzine

**Superficial effects only:** Slight color change, spot, or residue only with original protectability remaining from test results of following reagents:

77% Sulfuric Acid	37% Hydrochloric Acid	85% Phenol
33% Sulfuric Acid	20% Nitric Acid	Furfural
85% Phosphoric Acid	30% Nitric Acid	Dioxane

- Particleboard up to 7/8 inch [22.22 mm] thick shall be Industrial Grade average 47-pound density particleboard, ANSI A 208.1, M-3.
- Particleboard 1 inch [25.4 mm] thick and thicker shall be Industrial Grade average 45-pound density particle-board, ANSI A 208.1, M-2.
- Moisture Resistant Particleboard shall be average 47-pound density particleboard, ANSI A208.1, M-3.

**EDITING NOTE: Following is DuPont™ Corian<sup>®</sup>, revise as required for other types of solid surface materials.**

**Solid Surface Material (SSM):** Solid surface material shall be a homogenous filled solid polymer, not coated, laminated, or of a composite construction, and meeting ANSI Z124.3 and ANSI Z124.6 requirements.

**Flammability:** Flame Spread shall be 25 max. Smoke Developed shall be 25 max. Material thickness shall be as indicated on the drawings. Cast, 100 % acrylic solid polymer material shall be composed of acrylic polymer, mineral fillers, and pigments and shall meet the following minimum performance requirements:

Property	Typical Result	Test
Tensile Strength	6,000 PSI	ASTM D 638

Property	Typical Result	Test
Tensile Modulus	1.5 x 10 <sup>6</sup> PSI	ASTM D 638
Tensile Elongation	0.4% min.	ASTM D 638
Flexural Strength	10,000 PSI	ASTM D 790
Flexural Modulus	1.2 x 10 <sup>6</sup> PSI	ASTM D 790
Hardness	>85	Rockwell "M" Scale ASTM D 785
Thermal Expansion	3.02 x 10 <sup>-5</sup> in./in./°C	ASTM D 696 (1.80 x 10 <sup>-5</sup> in./in./°F)
Gloss (60° Gardner)	5–75 (matte—highly polished)	ANSI Z124
Light Resistance	(Xenon Arc) No effect	NEMA LD 3 Method 3.3
Wear and Cleanability	Passes	ANSI Z124.3 & Z124.6
Stain Resistance: Sheets	Passes	ANSI Z124.3 & Z124.6
Fungus and Bacteria Resistance	Does not support microbial growth	ASTM G21&G22
Boiling Water Resistance	No visible change	NEMA LD 3
High Temperature Resistance	No change	NEMA LD 3
Water Absorption	Long-term 0.6% (1/2") 0.8% (1/4")	ASTM D 570

Molded Resin Tops shall be non-glare epoxy resin or furan resin compounded and cured for minimum physical properties specified. Material shall be of uniform mixture throughout.

Compressive strength	200 MPa (30,000 PSI)
Flexural strength	70 MPa (10,000 PSI)
Rockwell hardness	105
Water absorption, 14 hours (weight)	.01%

Stainless Steel shall conform to ASTM A167, Type 304.

Sheet Steel shall conform to ASTM A366, cold rolled, Class 1 finish, stretcher leveled.

Hardwood Countertop shall be solid maple, clear grade.

Adhesive for plastic laminate shall conform to FS A-A-1936. Adhesive for shop and field joints in Solid Surface Material (SSM) shall be a two-part adhesive kit to create permanent, inconspicuous, non-porous, hard seams and joints by chemical bond between solid polymer materials and components to create a monolithic appearance of the fabrication. Adhesive shall be approved by the solid polymer manufacturer. Adhesive shall be color-matched to the surfaces being bonded where solid-colored, solid polymer materials are being bonded

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together. The seam adhesive shall be clear or color-matched where particulate patterned, solid polymer materials are being bonded together.

Fasteners shall be studs, bolts, spacers, threaded rods with nuts, or screws suitable for materials being joined with metal splice plates, channels, or other supporting shapes.

**7.13.2 COMPUTER WORKSTATIONS AND KEYBOARD TRAYS**

Computer keyboard trays shall be provided at each sit down height and standing height knee space in casework and at each Radiology room control station countertop. Keyboard trays shall be adjustable vertically, have tilt capability, and be able to be pushed under countertop when not in use. Provide cut out with grommet in tops at each workstation, for desk top equipment access to power and telephone/data outlets located beneath countertop.

**7.13.3 LOCKERS AND SHELVING**

Type(s), quantities, and locations of lockers and shelving shall be per Schedule B and as shown on conceptual plans.

**7.14 PLUMBING FIXTURES, TOILETS AND BATHS**

**7.14.1 TOILETS**

Provide toilet partitions as indicated on conceptual plans. Room entrance screens that double as part of a toilet partition enclosure shall be of typical stud construction, from floor to ceiling. Do not use toilet stalls or divider partitions in single-user toilet rooms in which only a lavatory and water closet are provided.

**EDITING NOTE: Ceiling-hung toilet partitions are preferred type. Use with maximum 8 foot ceiling height to provide stability and resistance to lateral force. Verify that drawings show dropped ceiling and structural steel supports for pilasters.**

**Floor-mounted, overhead braced partition may be considered for cost savings.**

**Do not use cantilevered or wall hung assemblies for toilet compartments.**

Conform to Fed. CID A-A-60003, except as modified herein. Fabricate to dimensions shown or specified.

Toilet Enclosures shall be Type 1, Style B (Ceiling hung). Reinforce panels to receive toilet tissue holders, grab bars, or other accessories specified. Upper pivots and lower hinges shall be adjustable to hold doors open 30 degrees. Latching devices and hinges for handicap compartments shall comply with ADA requirements.

**EDITING NOTE: Select steel or plastic material.**

**Finish:** Solid phenolic or solid polyethylene : water resistant, graffiti resistant, non-absorbent, contain a minimum 30% post consumer recycled plastic, Class C flame spread rating.

Urinal Screens shall be Type III, Style D (wall hung), solid phenolic, with integral flanges and continuous, full height wall anchor plate. Screens shall be 24 in' wide x 42 in high [600 mm wide x 1070 mm high].

**7.14.2 SHOWERS**

Use ceramic tile applied with thinset Portland cement to concrete-fiber reinforced backer board for shower enclosures and partitions of contiguous areas. Warp finished floors of adjoining drying rooms or toilet rooms toward showers to assure drainage to the shower drain. Floor slopes in and around a shower shall not exceed 5%.

Construct all patient showers without curbs. In non-patient shower rooms, provide at least one shower stall without a curb.

**7.14.3 TOILET AND SHOWER ACCESSORIES**

Types and locations of toilet accessories shall be as indicated in Schedule B of this solicitation. Multiple units of each type of accessory shall be furnished by the same manufacturer. Lessor shall provide suitable backing and other preparation as necessary for items indicated to be furnished by VA.

Toilet accessories shall be shop or factory assembled, free of dents and scratches and packaged complete with anchors and fittings, steel anchor plates, adapters, and anchor components for installation. Grind welded joints smooth. Fabricate units made of metal sheet of seamless sheets with flat surfaces.

Stainless steel sheet shall conform to ASTM A167, Type 304. Stainless steel tubing shall conform to ASTM A269. Galvanized sheet steel shall conform to ASTM A653, G60.

Mirror glass shall be float glass, Type I, Class 1, Quality q2 (ASTM C 1036), with silvering, copper coating, and suitable protective organic coating to copper backing in accordance with FS DD-M-411.

Adhesive shall be two component epoxy type or contact type and waterproof. Fasteners, screws, and bolts shall be stainless steel or hot dip galvanized. Exposed fasteners shall be tamper-proof. Expansion shields shall be fiber, lead, or rubber as recommended by accessory manufacturer for component and substrate.

Stainless steel shall have No. 4 satin brushed finish, unless otherwise noted. Chrome/Nickel Plating shall conform to ASTM B456, Type SC 2, satin finish, unless otherwise noted. Galvanizing for items other than sheet metal shall conform to ASTM A123, 1.25oz/sq yd.

**7.15 WINDOW TREATMENTS**

All exterior windows shall be equipped with window shades.

**7.15.1 CLOTH WINDOW SHADES**

Provide opaque cloth shades on windows of radiographic and fluoroscopic rooms, special procedures rooms, cardiac catheterization rooms, eye-clinic rooms, exterior conference rooms, and rooms containing image intensifiers as applicable.

**7.15.2 BLACKOUT SHADES AND SUNSCREEN SHADES**

Windows indicated in Schedule B shall receive Room Darkening A/V shades with double shade brackets for a blackout shade and a sunscreen shade as manufactured by MechoSystems, in lieu of a window blind. Shades shall be manual operation.

**7.16 HOLDING ROOM**

**EDITING NOTE: Include if holding room is in project program. The Holding Room is for short-term detention of offenders or assaultive patients awaiting transportation or transfer.**

**Select construction type to be used. Coordinate with Schedule E and conceptual drawings.**

Construct walls for holding room from minimum 4-inch [101.6-mm] CMU extended to the underside of the structure above.

- Doors and frames shall be heavy gauge hollow metal grouted solid and anchored into the masonry walls.
- Door hardware shall be UL 752 Level 3 forced entry rated controlled and monitored.
- An observation window consisting of reflective glass protected by clear polycarbonate shall be provided.
- Shackle hasps shall be anchored to wall construction and be capable of resisting pullout of not less than 500 pounds (228 kg).
- Provide anti-ligature construction.
- Vandal resistant products shall be used within the space. Any product within the space with screws shall be tamper resistant.
- Construction and materials shall eliminate opportunities for detainee to inflict self-injury and improvise weapons that could be used to harm others.

**EDITING NOTE: Door to holding room shall be Door Symbol 22, S-A, HW 10 (refer to VA PG-18-4 NCS Standard Details for door symbol and PG-18-1 MCS for hardware set). COORDINATE with Schedule E and conceptual drawings.**

The Holding Room should be contiguous with Security Operations Room and contain a shatterproof observation window in the door. The door shall open outward. The holding room shall not have exterior windows.

Provide one (1) each: motion detector, glass break module, and set of door contacts for holding room door. Locate alarm system keypad on the entrance side of the holding room door. Connect the alarm system for the holding room to the main building alarm system. Zone the alarm system so that the alarm for the holding room can be set and disarmed independent of the main building alarm system.

The Lessor shall be responsible for constructing and carrying the cost of the holding room as listed above. Upon space acceptance by VA, all cost associated with the holding room outlined above will be paid by the VA in a lump sum payment to the Lessor. Offerors shall list the lump sum cost associated with the holding room on GSA Form 1364.

**SECTION 8 SERVICES, UTILITIES AND MAINTENANCE**

**8.1 UTILITIES**

The Lessor shall ensure that public utilities necessary for operation are available and operable at the site at the time of final inspection. The Lessor is required to pay any deposits and hook-up fees relative to utilities (water-tap fee, water connection fee, sewer connection fee, sewer tap fee, etc.).

**The cost of utilities is not included as part of the rental consideration. VA will pay all expenses related to utility usage (electricity, voice/data, internet service, cable media (MATV- CATV), gas, water, and sewage) for space occupied and utilized by VA.**

**Lessor shall coordinate with COR the service level/s required for both the VA OI&T and the FMS network as to circuit types to be provided (T1, DS3, MPLS, SONET, etc.) to ensure that the performance requirements by VA are met.**

**EDITING NOTE: The following paragraph would apply in multi-tenant buildings or campuses. Consider deleting the separate meters if all space is occupied by VA.**

The Lessor shall provide separate meters to measure VA usage versus Lessor usage. Pro-ration is not permissible. Prior to occupancy by VA, the Lessor shall furnish to the Contracting Officer written certification of the meter numbers and certification that these numbers measure VA usage only.

**8.2 BUILDING MAINTENANCE AND CLEANING BY LESSOR**

**EDITING NOTE: Edit following paragraph as required identifying special project requirements.**

**8.2.1 BUILDING MAINTENANCE BY LESSOR**

**A. Lessor’s Responsibilities**

The Lessor is responsible for total maintenance of the leased premises in accordance with Paragraph 14 of GSA Form 3517B; **including special equipment items specified in Schedule B to be maintained by the Lessor.** Replacement costs for Schedule B items due to normal wear and tear are the Lessor’s responsibility. Maintenance of special equipment items identified in Schedule B to be maintained by VA is excluded from the Lessor’s responsibility.

The Lessor must have a building superintendent or a local, designated representative available to promptly correct deficiencies or attempt to correct deficiencies upon written notice of such condition from VA. The Lessor’s superintendent or designated representative shall correct or attempt to correct deficiencies within the timeframes specified in the O&M Plan



(Paragraph 8.4 below) and agreed to by the Government. If no substantial attempt has been made to correct the deficiencies within the specified time, action will be taken by VA to correct such deficiencies and the cost of repairs will be deducted from the next month's rental payment.

The Lessor shall provide the labor, material, and supervision to adequately maintain the structure, the roof, the exterior walls, windows, doors, and any other necessary building appurtenances to provide watertight integrity, structural soundness, and acceptable appearance.

The Lessor's maintenance responsibility includes initial supplies of all items, materials, and equipment necessary for such maintenance. All maintenance work will be done in accordance with applicable local Building Codes and ordinances, and inspection certificates will be displayed as appropriate.

Maintenance by Lessor includes, but is not limited to, exterior care of the building and the site; all sidewalks, parking areas, driveways, private access roads, lawns, and shrubbery; utilities; and building service equipment; including all repairs and replacements. All equipment and systems shall be maintained to provide reliable service without unusual interruption, disturbing noises, exposure to fire or safety hazards, or unusual emissions of dirt.

Lessor shall maintain the Essential Electrical System as required by NFPA and JCAHO, including, but not limited to, weekly, monthly, annually, and triennial tests and activities.

**B. Frequency of Maintenance**

At a minimum, the Lessor shall perform the following at the frequency indicated:

*(1) Weekly*

Mow and edge lawns weekly during the growth season.

*(2) Monthly*

Remove weeds from around building, parking areas, all landscaped areas (including lawn), and fence borders (both sides of fence).

Mow and edge lawns at least once a month during the dormant season.

Trim and prune shrubbery and trees to maintain an attractive appearance. Shrubbery shall not be allowed to grow up and cover windows.

*(3) Quarterly*

Provide interior and exterior extermination of insects and rodents. Use of chemicals shall conform to EPA and State requirements. The Lessor shall provide additional service at the request of VA, if any signs of re-infestation appear.

Pest management is to be done using an integrated pest management approach that minimizes the use of toxic chemicals.

Pesticide shall only be applied by persons deemed qualified by EPA and state requirements.

Lessor shall coordinate application of pesticide with the Government and only apply pesticide in a manner that VA agrees is protective of the health of patients, employees, and visitors.

(4) *Semi-Annually*

Replace all filters in HVAC system. Replace on a more frequent basis if required by the manufacturer's recommendations.

(5) *Annually*

Clean interior of all double-walled HVAC units and drain pans. Cleaning shall be done at times when clinic is not in operation.

Re-mulch all planting beds.

(6) *As Required*

Lessor is responsible for the repair and replacement of all light fixture ballasts and starters (refer to GSA Form 1217). Lessor shall replace burned out bulbs and fluorescent tubes in interior light fixtures.

Lessor is responsible for replacement of worn floor or wall coverings (this includes the moving and returning of furnishings and equipment), unless caused by negligence on the part of VA. Provide interior extermination of insects and rodents upon any sign of infestation. Use of chemicals shall conform to EPA and State requirements.

Water the grass and plantings as necessary to maintain their health and attractive appearance.

Fertilize all lawn areas at least three times per year. Fertilizer application prior the start of the growth season shall contain weed killer per manufacturer's recommendations.

Fertilize plants and trees with type of fertilizer recommended by manufacturer. Fertilize with frequency recommended by manufacturer of type of fertilizer used.

Dead plantings or lawn shall be replaced with like kind immediately. Partially dead plantings may be trimmed if, after trimming, a good appearance is maintained.

Rake and remove leaves to ensure a good appearance of the site.

Clean HVAC units inside and out upon any signs of mildew or bacterial growth.

Pans in HVAC units shall be treated as required to prevent mildew or bacterial growth.

Before working hours (Monday to Friday 8:00 AM to 4:30 PM; Thursdays extended hours to 6:30 PM and Saturday hours 8:00 AM to 2:00 PM) remove snow and ice from all entrances, sidewalks parking lots, and approaches. In the event of snow or freezing rain during working hours, removal must occur within one hour from receipt of notification by VA staff. Chemicals or sand may be used to reduce safety hazards.

**8.2.2 EXTERIOR CLEANING BY LESSOR**

**A. Lessor’s Responsibilities**

The Lessor shall maintain the leased premises to provide a clean, neat, and attractive appearance by performing the functions described below.

**B. Waste and Recycling**

**EDITING NOTE: Edit the following paragraph to suit size of clinic, anticipated volume of waste and recycled materials, and frequency of collection. If possible, indicate estimated types and quantities of waste to be handled by Lessor.**

The Lessor shall have no responsibility for disposing of hazardous or pathological waste. The Lessor shall provide collection, disposal, and recycling for all other waste materials generated by VA. Recycling of comingled material is required.

Locate waste and recycling container near the loading dock/service area in accordance with security requirements. The Lessor shall provide and maintain adequate quantity of trash container(s), including compacting equipment as required, based on volume of waste and frequency of collection. As a minimum, provide **one 40 cubic yard** covered container with weekly collection and removal from site for refuse, trash, and garbage. The Lessor shall provide the covered recycling receptacles, and shall collect and remove recycled materials weekly.

**C. Extermination**

Extermination of insects and rodents shall be provided on a regular basis (minimum of every three (3) months), and upon any sign of infestation. Use of chemicals shall conform to EPA and state requirements. If any signs of re-infestation appear, additional service shall be provided by the Lessor at the request of VA.

**D. Frequency**

At a minimum, the Lessor shall perform the following at the frequency indicated:

(1) *Daily*

**Building entrances:** Pick up trash, litter, debris, and cigarette butts.

(2) *Three Times Weekly*

Sweep landings, steps, and sidewalks.

Police all sidewalks, parking areas, green areas, planting beds, driveways, lawns, shrubbery, outside loading dock areas, platforms, etc., to maintain a neat and attractive appearance. This shall include, but not be limited to, the removal of cigarette butts, debris, litter, trash, limbs, etc. (from both sides of fences).

(3) *Quarterly*

Lessor shall clean bugs from the interior of exterior light lenses.

Clean balconies, ledges, courts, areaways, gutters, and flat roofs.

Clean mildew from exterior of building, sidewalks, and roof areas, etc.

(4) *Semi-Annually*

Wash outside of all exterior windows, glass located over and in exterior and vestibule doors, and all exterior plate glass around entrances, lobbies, vestibules, and skylights.

(5) *Annually*

Clean exterior of building. Remove all spider webs, wasp nests, dirt dobber nests, stains, etc.

**8.2.3 INTERIOR CLEANING BY LESSOR**

**EDITING NOTE: Delete Paragraph 8.2.3 and all sub-paragraphs if interior cleaning is by VA (see Paragraph 8.8). If interior cleaning is to be provided by the Lessor, retain and edit the following paragraphs to suit project requirements.**

**A. Lessor’s Responsibilities**

Lessor shall have no cleaning responsibility for the interior of the leased premises. The VA shall have responsibility for interior janitorial services of the leased premises.

**8.3 NORMAL HOURS**

Normal working hours are **8:00 Monday to Friday 8:00 AM to 4:30 PM; Thursdays extended hours to 6:30 PM and Saturday hours 8:00 AM to 2:00 PM**, except Federal holidays.

**8.4 BUILDING OPERATING PLAN**

Offerors shall submit a building operating plan with the offer. The plan shall include a schedule of startup and shutdown times for operation of each building system, such as lighting, cooling, ventilation, and plumbing, necessary for the operation of the building. The plan shall be in operation on the effective date of the lease.

The Lessor shall submit an Operations and Maintenance Plan narrative as required in PART II Schedule A.

**8.5 OVERTIME USAGE**

Government shall have access to air-cooled or heated leased space at all times, including the use of elevators, toilets, and lights without additional payment.

**8.6 FLAG DISPLAY**

The Government will be responsible for flag display.

**8.7 SECURITY**

The Government shall provide security personnel to prevent illegal entry or loitering in the leased space and to prevent unauthorized entry during duty hours.

The Lessor shall be responsible for providing security to prevent unauthorized entry after normal working hours.

**8.8 VA CLEANING RESPONSIBILITY**

**EDITING NOTE: Use following two paragraphs if interior cleaning is by VA.**

The Government shall maintain the interior of the leased premises in a clean condition. The Government shall provide supplies and equipment.

VA shall have no cleaning responsibility for the outside of the leased premises.

**EDITING NOTE: Use following paragraph if interior cleaning is by Lessor.**

**EDITING NOTE: Following paragraph applies to all facilities.**

The Government will be responsible for the disposal of hazardous or pathological waste which has been properly stored in the designated store room.

**SECTION 9 SAFETY, FIRE PROTECTION, AND ENVIRONMENTAL MANAGEMENT**

**9.1 GENERAL**

**9.1.1 PERMITS**

Space must have a current occupancy permit issued by the local jurisdiction. Lessor shall obtain and maintain in force all necessary permits for operation of building services and equipment, including but not limited to fuel-fired mechanical equipment, emergency and stand-by generators, equipment to treat or exhaust toxic or hazardous gases, and solid or liquid wastes.

**9.1.2 INSPECTIONS BY LESSOR**

Lessor shall inspect, test and maintain building systems, fire and life safety systems and equipment, as required by the more stringent of NFPA guidelines or local codes. Lessor shall submit documentation as acceptable to the Contracting Officer of tests, report, and maintenance logs.

At a minimum, systems and equipment for which inspections and reports are required include, but are not limited to, those systems as enumerated in NFPA 99, other applicable NFPA guidelines, and the following:

- Essential Electrical System
- Gas and Vacuum Systems
- Environmental Systems
- Fire Doors and Shutters
- Portable Fire Extinguishers
- Fire Suppression Systems
- Standpipe Systems
- Fire Detection and Alarm Systems

**9.1.3 INSPECTIONS BY GOVERNMENT**

The government reserves the right to conduct independent inspections, testing, assessments, and detailed studies in space it occupies, as well as in space serving the VA leased space (e.g., common use areas, mechanical rooms, HVAC systems, etc.). The Lessor shall assist VA in its assessments and detailed studies by making available information on building operations and Lessor activities, and providing access to space for assessment and testing, if required. These may include, but are not limited to, noise and vibration testing, water and air quality sampling, water, and air sampling for pathogens, *Legionella* cultures and copper/silver analysis, radon testing, mold testing, Facility Condition Assessments of building systems and equipment, etc. Work may be performed by independent consultants, or VA personnel.

Lessor shall implement corrective measures required by the Contracting Officer.

**9.2 CODE VIOLATIONS**

Equipment, services, or utilities furnished, and activities of other occupants, shall be free of safety, health, and fire hazards. When hazards or code violations are detected, they must be promptly corrected at the Lessor's expense. Where requirements conflict, the decision of the Contracting Officer shall be final.

**9.3 SPECIAL ENVIRONMENTAL REQUIREMENTS**

**9.3.1 INDOOR ENVIRONMENT**

Lessor shall maintain building envelope and building systems in good repair in accordance with Section 8 and Part II, Appendix A of this solicitation. Excess or uncontrolled water can damage interior finishes, furnishings, or equipment, and can contribute to growth of mold and other pathogens. Lessor shall take precautions in design, construction, operation, and maintenance of the facility to control the entry of water from outside sources or leaks from building systems.

Lessor shall promptly repair any leaks and replace damaged materials or finishes. If mold or other pathogens are discovered, Lessor shall be responsible for remediation.

**9.3.2 SPECIAL BUILDING EQUIPMENT**

Special building equipment required to treat and exhaust to the atmosphere toxic gases produced by the agency program equipment shall be maintained in proper operating condition. Maintain all such installations in compliance with appropriate OSHA, EPA, or related regulations of the local community.

Offeror shall obtain operating permits as required by EPA and local Authorities Having Jurisdiction for the operation of exhaust-producing generators and building air and water heating equipment.

**SECTION 10 INSTRUCTIONS AND PREPARATION**

**10.1 NOTICE TO OFFERORS**

Offerors must read all parts of this Solicitation. All forms required for offer are included in this Solicitation. Any additional information must be requested in writing. **Oral instructions are not binding.**

When there is a discrepancy between this Basic Solicitation and GSA forms, the Basic Solicitation will prevail.

**NOTE: Current GSA forms are available electronically from the GSA web page at the following address:**

<https://www.gsa.gov/forms-library/standard-form-86-certification>

Offerors may utilize these current electronic versions of GSA forms to fill in the appropriate information in lieu of using hardcopy versions provided elsewhere in this Solicitation and filling in the information by hand.

**10.2 DEVIATIONS**

Offers will be construed to be in full and complete compliance with this Solicitation unless the Offeror describes any deviation in the offer. The Contracting Officer shall make decisions regarding deviations that cause the offer to be non-responsive.

**10.3 ERASURES OR CHANGES**

The person signing the offer must initial erasures on, or changes to, the offer forms.

**NOTE: Agents must submit a valid copy of a notarized agreement authorizing him/her to submit offer and negotiate on behalf of owner/developer.**

**10.4 COMPLETION OF GSA FORM 3518**

The Offeror must submit with the offer a signed copy of GSA Form 3518, Representations and Certifications, with all information completed as requested.

**SECTION K – REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS OR RESPONDENTS**

K.1 FAR 52.204-8 Annual Representations and Certifications. (May 2014)

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is in the below table.

(2) The small business size standard is:

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Functional Category	NAICS Code	Description	Size Standard
Sector 53 – Real Estate and Rental and Leasing	531190	Leasing of Building Space to Federal Government by Owners	\$38.5 Million

**10.5 PREPARATION OF GSA FORM 1217**

The Offeror must submit a signed copy of GSA Form 1217, Lessor's Annual Cost Statement, with the offer. Directions for completion of the form are on the back of the form.

**10.6 PREPARATION OF GSA FORM 1364A (REVISED 12/04)**

The following instructions will assist you in completing GSA Form 1364A, Proposal to Lease Space. **Offered rates must be submitted in Net Usable Square Feet (NUSF).**

**Note: Refer to Part 8 of the SFO (Forms) for the GSA Form 1364A – Proposal to Lease Space Guidance Form for detailed instructions.**

**Section I – Description of Premises**

Blocks 1 – 7: Enter the general information about the site/building, including address and number of floors. Enter total amount of Net Usable Square Feet of space offered. Do not break out the space by type. Enter floor load, type of construction, and building age. If not applicable, place N/A in appropriate block(s).

**Section II – Space Offered and Rates**

Blocks 8 – 13: Indicate whether space is Full or Partial Floor, enter the number of Net Usable Square Feet of space offered. If not applicable, place N/A in appropriate block(s).

Enter the Net Usable Square Foot rate per year for the Initial Term, **including** costs of special requirements as described in Schedule B and as specified in this Solicitation (refer to Paragraph 1.8 PROPOSALS) to be provided by the Lessor.

Enter the Net Usable Square Foot rate per year for the Renewal Option **including** costs of special requirements as described in Schedule B and as specified in this Solicitation (refer to Paragraph 1.8 PROPOSALS) to be provided by the Lessor. Alternate Proposals may be submitted on plain bond paper, attached to the form, and signed by the Offeror.

Proposals excluding cost of special requirements may be submitted on plain bond paper, attached to the form, and signed and dated by the Offeror.

Enter the number of parking spaces offered (inside and outside) and indicate any cost to the Government, if applicable.

**Section III – Lease Terms**

Blocks 14 – 19: Enter information regarding Initial Lease Terms and Renewal Options of any Alternate Proposals, Schedule B lump sum costs, Rentable Square Foot Rate and Square

Footage, Lists of Attachments, and any Additional Remarks, List of Attachments, Alternates, and any Additional Remarks.

**Section IV – Owner Identification and Certifications**

Blocks 20 – 23: Indicate the Offeror's interest in the offered property. Specify if other than owner or agent. Agents must submit a valid copy of a notarized agreement authorizing him/her to submit and negotiate on behalf of the owner/developer. If the Offeror is a partnership, VA must receive written evidence, by agreement or otherwise, that the person signing this offer has been authorized to do so by all partners. If the Offeror is a corporation, VA must receive a corporate resolution, signed by the Secretary of the corporation under corporate seal that sets forth all officers of the corporation and indicates which are authorized to bind the corporation.

Complete, sign, and date offer.

**NOTE: OFFER MUST BE RECEIVED BY 4:00 PM (ET) ON THE DATE SPECIFIED IN PARAGRAPH 1.5, AT THE ADDRESS CONTAINED IN PARAGRAPH 1.7 OF THIS SOLICITATION. ENVELOPE SHOULD BE IDENTIFIED IN THE LOWER LEFTHAND CORNER WITH THE WORDS:**

**"Tulsa OPC – SFO NO. VA-101-17-R-0320"**

**10.7 DRAWINGS AND SPECIFICATIONS – SUBMISSION WITH OFFER**

Offeror shall submit drawings and specifications on discs (CD-Rom as specified in Paragraph 1.7.1 and two hard copy sets of drawings and specifications with the following minimum information. Format and for hard copy submittal shall be as follows:

*(1) Drawings*

Hard copies shall be black line prints on bond paper, full size (30" x 42"). Each set shall contain all sheets for all disciplines.

*(2) Specifications*

Hard copies shall be printed on 8½" x 11" bond paper. Materials may be one-sided or double sided copies. Each copy shall contain all sections. Organize and tab materials by discipline.

**NOTE 1:** Failure to provide drawings and specifications in accordance with the requirements above may cause the offer to be deemed unacceptable and rejected accordingly.

**NOTE2:** The conceptual floor diagram provided by VA as a part of this Solicitation is intended to convey desired floor locations and adjacency relationships of the main components of the program. The interior layout and footprint of the building may vary as a result of actual site conditions and building design development. The number and location of doors will vary as the Offeror develops detailed plans. The conceptual diagram also shows rooms dedicated to building services. The size and location of these rooms will vary as the Offeror develops detailed plans. It is the Offeror's responsibility to design the building to comply with applicable Building Codes and ordinances. **Offerors are advised that rent payment will not be made for delivered space that is in excess of the maximum NUSF solicited.**

**NOTE 3:** All drawings shall be prepared per VHA National CAD Standard Application Guide, available on the VA Technical Information Library (TIL) website at <http://www.cfm.va.gov/til/projReq.asp>. Drawings shall be on Architectural E-size sheets (30x42 inches). Title blocks shall identify the Offeror and shall include Solicitation Number, Clinic Name, and Location. Drawings shall be organized by discipline and shall include the following minimum information.

**10.7.2 SITE PLAN(S)**

Minimum scale 1"=40' or per local jurisdictions standard requirements, whichever is greater. Plan(s) shall show all site and building demolition, and all site improvements including grading, exterior equipment location, parking, vehicle and pedestrian circulation, storm water retention, and landscaping. Indicate any relationship to flood plains, adjacent uses, and current zoning status.

Lessor shall identify potential issues as they pertain to the site complying with all Federal standards when applicable, i.e., National Environmental Policy Act (NEPA), The Department of Veterans Affairs Environmental Compliance Manual, Jurisdictional waters of the United States (404 & 401b) individual or nationwide permits, etc.

**10.7.3 FLOOR PLAN(S)**

Submit, as a minimum, a double line layout for all floors, penthouses, and roof areas with double line exterior walls at a scale not less than 1/8 inch. Show all rooms, doors, corridors, basic column grid, assumed column sizes, expansion and seismic joint locations, mechanical, electrical, and telecommunications rooms, shafts, and (if applicable) all vertical circulation, i.e., stairs and elevators.

Identify each room or space with its space identification number from the VA conceptual plan or Room Finish and Door Schedule. Names on drawings shall be the same as those used in the SFO.

Show the overall exterior dimensions, dimensions for building wings or offsets, and dimensions for column grids.

**10.7.4 ELEVATIONS**

Submit preliminary elevations of all facades showing massing, proposed fenestration, and the building relationship to finish grades. Show all significant building materials, any proposed roof top mechanical equipment, and architectural screens on the elevation drawings.

Provide a schematic section to define building configuration.

**10.7.5 COLOR RENDERINGS**

Submit a minimum of two color renderings of perspective views to communicate the design concept and materials. Submit at least one exterior view illustrating building massing, exterior materials and colors, fenestration, and relationship to context. Submit at least one interior

view to illustrate approach to the interior design concept, materials, colors, and integration with wayfinding.

Renderings may be prepared using the A/E's preferred media. Renderings shall be minimum 15" x 20". Submit renderings or prints mounted on mat board, foam core, or similar lightweight material. Do not frame renderings.

**10.7.6 SPECIFICATIONS**

Submit outline specifications for foundations, superstructure, exterior closure and building envelope systems, plumbing, fire protection, HVAC, electrical, telecommunications systems (Division 27) and security (Division 28) systems.

**10.8 DESIGN CONCEPT: SUBMISSION WITH OFFER**

Offeror shall submit design concept materials with other technical submittals on discs (CD Rom as specified in Paragraph 1.7.1 and two hard copy sets of drawings and specifications with the following minimum information. Materials shall be organized and tabbed to follow the outline in paragraphs 10.8.1 through 10.8.12 below.

Hard copies shall be printed on 8½" x 11" bond paper. Materials may be one-sided or double-sided at Offeror's option. Bind in one or more volumes as necessary. Identify each volume with Offeror's information, solicitation number, clinic name, and location. Each set shall contain all volumes.

**10.8.1 ARCHITECTURE/STRUCTURAL**

Submit a narrative explaining the design concept including exterior design, interior finishes, and interior design concept. Describe overall design concept and relationship to site and context. Describe any changes from VA-supplied concept plan for organization of spaces, departments, building entrances, and major circulation routes. Discuss preliminary concept for interiors and finishes.

Submit a narrative that clearly explains the engineering criteria and rationale used in selecting the proposed structural system. Describe proposed materials and approach to be used in design of foundations, vertical members, floor and roof systems, and lateral force resisting system. Indicate typical structural bay size.

**10.8.2 SUSTAINABLE DESIGN AND ENERGY EFFICIENCY**

Submit a checklist identifying targeted solutions to meet energy reduction goals and documentation of the proposed GREEN GLOBES® FOR NEW CONSTRUCTION (GG® -NC) credits for Two Green Globes level certification. Along with the checklist, the Offeror shall submit a brief statement outlining how each of the Green Globe® credits proposed will be achieved.

**10.8.3 FIRE PROTECTION**

Submit a narrative explaining building construction type, building fire/smoke separation, fire sprinkler/standpipe systems, water supply available fire flow/maximum demand, and hazard rating and fire alarm systems. Indicate NFPA 220 and IBC fire-resistive ratings of the building.

**10.8.4 MECHANICAL**

Submit a narrative that clearly states the engineering criteria and rationale used for selecting the type of HVAC system(s) and tentative zoning of the systems. State clearly all assumptions and parameters used in calculating heating and cooling loads. If the calculations are performed on a computer, provide the name of the program. Provide a list of the energy conservation measures proposed to be used in the HVAC system design. State clearly the logic and criteria used in selecting each conservation measure. Investigate the availability of utilities, such as natural or propane gas, electricity, etc., for the HVAC equipment and provide description of their status.

Provide a single-line schematic plan of HVAC zoning.

**10.8.5 ELECTRICAL**

Submit a narrative that clearly states the electrical power and lighting design approach, including basic assumptions and information regarding the local electrical utility company. Describe extent of utility company work if any is required.

**10.8.6 STRUCTURED CABLING**

Submit a narrative that clearly states the structured cabling design approach, including basic assumptions and information regarding the structured cabling system (pathways, spaces and cabling for copper, fiber, coax, and the bonding and grounding backbone, and horizontal cabling within the guidelines). Describe the extent of outside plant connections service provider connections; identify the placement of manholes, handholes and below grade telecommunications pathways.

Narrative shall identify the proposed active and passive components to be provided in support of the installation of the identified special systems.

Narrative shall provide a summary (in the format of an Excel spreadsheet) of the proposed structured cabling system components (major components only - manufacturer, model/part number, warranty) and those active/passive components to be installed in support of the Special Systems applications identified in Schedule B. Cutsheets in a PDF format shall be provided for all items reflected on the summary spreadsheet.

**10.8.7 SECURITY**

Submit a narrative that clearly states the security intent and cabling design for access control, intrusion detection, and video surveillance, including basic assumptions and information regarding the topology and connectivity within the guidelines. Describe the extent of

monitoring, recording, control, and retention of all equipment. An Excel spreadsheet shall be used to summarize the major components being proposed. Cutsheets in a PDF format shall be provided for all items reflected on the summary spreadsheet.

**10.8.8 AUDIO VISUAL**

Submit a narrative that clearly states the audio visual intent and cabling design for the facility, including basic assumptions and information regarding the topology and connectivity within the guidelines. Describe the extent of digital signage, video projection, and sound. An Excel spreadsheet shall be used to summarize the major components being proposed. Cutsheets in a PDF format shall be provided for all items reflected on the summary spreadsheet.

**10.8.9 SPECIAL SYSTEMS**

Special systems may include but are not limited to the following:

- Nurse Call
- IP-Based Public Address (PA)
- Master Antenna Television (MATV) / Community Antenna Television (CATV)
- IP-Based Motion Intrusion Detection
- IP-Based Security Management and Control, and Centralized Police Security Management Systems
- IP-Based RFID / RTLS
- IP-Based Security Emergency Call / Duress
- IP-Based SSTV Monitoring
- IP-Based Video Conferencing (VTEL)
- IP-Based Electronic Access and Door Control
- IP-Based WLAN Public Hotspot

Submit a narrative that clearly states the special systems cabling design approach, including basic assumptions and information regarding the special systems backbone and horizontal cabling within the guidelines. Describe the extent of the special systems and connections for new installed equipment, or if required, for extension of existing systems.

Provide details concerning the interconnectivity of the security based special systems to the VA regional center for the clinic

**10.8.10 PHYSICAL SECURITY MEASURES**

VA Outpatient facilities must comply with the requirements for Life Safety Protected (LSP) as defined in VA Physical Security Design Manual (PSDM). Submit a narrative describing physical security measures incorporated into the design. Include features related to both man-made and natural events. See Paragraph 4.2.4.

**10.8.11 WATER DISTRIBUTION**

Submit a narrative that clearly states the water distribution design approach, including basic assumptions and information regarding the local water utility. Describe the required demand including the fire flow, the availability to connect to the existing water distributions system,

whether the existing system can meet the proposed demand, and the ability to provide a looped system. If the water utility cannot provide modeling information that substantiates that the existing system can support the new structure(s), the Lessor shall be responsible for providing modeling information that supports the new structure(s).

**10.8.12 SANITARY SEWERAGE SYSTEM**

Submit a narrative that discusses the sanitary sewer design approach. Discuss existing capacity in the downstream sewer system and proposed points of connection. Provide calculations substantiating the proposed flows to be generated from this site.

**10.9 CALCULATIONS: SUBMISSION WITH OFFER**

This information will be used to evaluate the "Quality of Building and Design Concept" factor as referenced in Paragraph 2.2.

Offeror shall submit calculations with other technical submittals on discs (CD Rom as specified in Paragraph 1.7.1) and in two hard copy sets. Materials shall be organized and tabbed to follow the outline in Paragraphs 10.9.1 through 10.9.3 below.

Hard copies shall be printed on 8½" x 11" bond paper. Materials may be one-sided or double-sided at Offeror's option. Bind in one or more volumes as necessary. Identify each volume with Offeror's information, solicitation number, clinic name, and location. Each set shall contain all volumes.

**10.9.1 AREA COMPUTATIONS**

Submit key plans or diagrams to indicate methodology used to compute total gross area of the building and the total inside gross area minus the deductions as specified in Paragraph 3.14 RENTABLE AND NET USABLE SQUARE FEET of this Solicitation to arrive at the total net usable square foot calculation.

**10.9.2 HVAC CALCULATIONS**

Submit preliminary HVAC block load calculations for estimated heating and cooling requirements of the building (BTUH's per gross square foot per year).

**10.9.3 ELECTRICAL CALCULATIONS**

Submit preliminary electrical square foot load calculations for both normal and emergency use. Separate calculations into lighting, receptacles, and equipment power (medical, radiology, elevator, and mechanical).