

SECTION 01 00 00
GENERAL REQUIREMENTS

1.1 GENERAL INTENTION

- A. Air balance the 4th floor of Building 12 as described in the scope of work provided.
- B. Visits to the site by Bidders may be made only by appointment with the Contracting Officer.
- C. All employees of general contractor and subcontractors shall comply with VA security management program and obtain permission of the VA police, be identified by project and employer, and restricted from unauthorized access.
- D. Prior to commencing work, general contractor shall provide proof that a OSHA certified "competent person" (CP) (29 CFR 1926.20(b)(2)) will maintain a presence at the work site whenever the general or subcontractors are present.
- E. Training:
 - 1. All employees of general contractor or subcontractors shall have the (10-hour and 30-hour where applicable by position) OSHA certified Construction Safety course and /or other relevant competency training, as determined by VA CP with input from the ICRA team.
 - 2. Submit training records of all such employees for approval before the start of work.
- F. Facility Specific Requirements:
 - 1. Contractor shall set in place and maintain a confined space program for all applicable work as outlined in this section.

a. Confined Space

Permit Required Confined Space. Permit form is required. Among other requirements, a person stationed at the entry point is

required. Formal training for workers and entry person is required.

Locations:

Permit-required confined space:

Tunnel	Mech Room / Boiler Plant
Tunnel	CLC under flag pole to Bldg 1D
Bldg 1 Crawl Space	begins at half-height door at each end
Bldg 12 Crawl Space	Includes basement access BC100
Bldg 1-1 Clinical Lab	Access to HVAC/Plumbing
Utility Chase	Boiler Plant routes under Kirman to east end of Bldg 1 Center Wing
Heat Aerator	Bldg 8 Boiler Plant
Condensate Tank in pit	Bldg 8 Boiler Plant
Boiler Mud Drums (3ea)	Bldg 8 Boiler Plant
Boiler Steam Drums(3ea)	Bldg 8 Boiler Plant
Boiler Fire boxes (3ea)	Bldg 8 Boiler Plant
Electrical Vaults	Adjacent to Bldgs 1D & 12, Courtyard
Sewers/Storms Drains	Facility Grounds
Communication Vaults	Facility Grounds

Non-permit confined space:

This category does not apply to contractors - even for investigative purposes they must treat the area as permit required and implement their confined space program accordingly. Exception: If a VA employee escorts the contractor and remains with them 100% of the investigative time then the permit will not be required. In general, we should not plan on being their escort except for very short durations.

Permit-required confined space:

Every space identified in the list above is to be treated as permit- required.

Implement an approved confined space program.

Contractor must submit for approval their confined space program.

2. Rules for the Contractor is set-up as a facility specific guide for the contractor.

a. Rules of the Facility for Construction Contractors

VA Sierra Nevada Health Care System is a multi-faceted health care facility tasked with providing health care to the men and women who have served in the armed forces of the United States of America in order to provide for the defense of this county. At all times while working within the facility grounds all contractor's employees must follow the below listed rules of the facility and treat all patients who they may come in contact with utmost respect and dignity. Any contractor employee who mistreats a veteran or violates any of the rules listed below will be removed from the facility.

1. All patient information is private and cannot be disclosed to others.

- o If a contractor employee sees a friend, neighbor or other acquaintance receiving health care at the facility they are not to discuss who they saw at the facility with anyone regardless of the circumstances.
- o Any information overheard or seen regarding a patient's medical condition is likewise not to be shared with anyone regardless of the circumstances.

2. Safety is a top priority for the facility.

- o Contractor must present evidence that each on-site employee has completed the 10 hour OSHA safety training course and evidence that each supervisor has completed the 30 hour OSHA safety training course for supervisors.
- o Contractor employees shall at all times wear proper safety attire for the work being accomplished. Further, all contractor equipment and work areas shall be observed at all times. Unattended ladders, doors to electrical closets or mechanical rooms being left open, access panels or manholes covers being moved and not protected are serious safety violations and could result in the dismissal of the responsible employee and a stand-down for the prime and all subs. The General or Controlling Contractor is responsible for site safety, and the employer is responsible for the performance of the tasks of his/her employees. Note that the extent of the measures that a controlling employer must take to satisfy its duty to exercise reasonable care to prevent and detect violations is less than what is required of an employer with respect to protecting its own employees.

3. Electrical: De-energized Panels and Lockout/Tagout

- o All contracting firms have sole responsibility for the systems given that they install and maintain. If contractors work on energy producing systems that are normally serviced by FMS personnel, or need to control the energy to the systems for which they have responsibility, then the lockout/tagout operations will be performed by the contractor and overseen by the primary COTR who validates that the contractors have applied their lockouts/tagouts in the appropriate locations.
 - o Likewise, work on electrical panels can only occur if the panel is de-energized. Likewise, all utility systems are to be shut-down and certified as being off line prior to the contractor tapping into the system.
- 4. Infection control is a top priority for the facility.** No work will be allowed to occur anywhere within the facility until an Infection Control Risk Assessment (ICRA) form has been filled out and all required work activities properly required by the completed ICRA have been implemented including, but not limited to construction of dust barriers and **installation of HEPA filters**. **The hospital side of job access points must be kept pristine; use of sticky mats and continual sweeping/mopping and other appropriate measures to keep facility areas clean are to be provided by the contractor as needed**
- 5. Contractor employee parking.** No contractor is permitted to park on hospital property with either their personal or business vehicle - use the streets. Contractor's employees vehicles found parking on campus are subject to being ticketed (with fine) by VA Police with notification to the CEO of the prime.
- 6. Contractor discussions regarding project details or related impact** are **NOT** to occur with anyone at the VA without the permission or presence of the COTR or other authorized representative from FMS.
- 7. Contractor employee use of facility toilets and restrooms.** Contractors will be authorized to use the restroom facilities unless issues arise.
- 8. Facility work hours.** The facility is an operating health care center and as such activities occur on a 24-7 basis. However the majority of services provided by the facility occur between the hours of 7a and 5p, Monday through Friday. The contractor is to schedule all work activities as necessary to minimize the impact of the construction activities on the day-to-day operations of the facility.

Unless otherwise arranged, contractor work hours are limited to 7:30a to 4p.

9. **Utility shutdown.** No utility shutdowns will be allowed without proper prior coordination with the medical center. Minor utility shutdowns (those which in no way impact patient care activities) are to be scheduled no less than 72 hours in advance of the planned shutdown. Major utility shutdowns (those which do impact patient care activities) are to be formally requested no less than 21 days in advance of the requested shutdown.
10. **Contractor's staging area.** There is limited space available for the contractor to use as a staging location. Unless otherwise noted in the contract drawings or specifications, all staging of equipment and materials is to occur within the boundaries of the limits of construction as shown on the contract documents. Coordination for street use for dumpsters and storage is between the contractor and the City of Reno.
11. **Fire alarm or fire sprinkler work and/or tie-ins.** No removal, relocation, disconnection, disabling or connection to the existing facility fire alarm or fire sprinkler systems are to occur until the contractor has obtained the approval of the facility safety manager. It is recommended that wire guards be installed over sprinkler heads within construction boundaries. The contractor is responsible for paying the cost of any fire department response when said the response is due to negligence by the contractor.
12. **Hot work.** No hot work is to occur until the contractor has received an approved hot work permit from the facility safety manager via the COR.
13. **Firearms, knives, etc.** This facility is located on federal property. In accordance with federal law, no person, unless authorized to do so (Federal police and government agents only at this facility) are allowed to carry firearms or knives on property grounds.
14. **Alcohol.** This facility is located on federal property. Therefore the possession, sale of or use of alcohol on the grounds is strictly prohibited.
15. **Smoking.** Smoking is not allowed anywhere in the facility inside buildings and only in selected areas outside buildings as defined by marks on the pavement.
16. **Fire Egress.** As a functioning medical facility it is imperative that, in the event of a disaster which requires

evacuation, the evacuation routes are available to patients and staff. Blocking of stairwells, corridors, exit doors and other means of evacuation are strictly prohibited unless approved by the Facility Safety Manager as evidenced by his signature on a posted Interim Life Safety Measure (ISLM) document.

- 17. Handicap Accessibility.** As a functioning medical facility it is imperative that all handicap access areas, including ramps, sidewalks, handrails, etc. remain unobstructed at all times unless approved by the Facility Safety Manager as evidenced by his signature on a posted Interim Life Safety Measure (ISLM) document.
- 18. Debris removal.** All debris to be removed from a construction site off site for disposal is to be properly covered whenever it exits a construction area and enters an area occupied by the facility. Tossing of debris materials out of windows or off roof areas without proper use of a trash chute is strictly prohibited.
- 19. Use of electronic equipment.** As a medical facility there is a large amount of electronic equipment that is used by the facility to track patient condition. Hand held electronic equipment such as cell phones, walkie-talkies, radios, Ipods, has the potential to impact the signals provided by the medical equipment thereby impacting patient care. Therefore no hand held electronic equipment is to be used by any contractor employee in the vicinity of areas where health care is provided.
- 20. Badges.** Identification badges are provided for use of all contractor employees. These badges are to be worn by the employee at all times they are on facility grounds. Any contractor employee who is either not wearing or cannot, upon questioning, produce their badge is subject to be removed from the facility. A background check is performed for any employee who will be on-site more than seven days.
- 21. Project Submittals on Site.** At all times when work is in progress the contractor is to have a set of approved submittals on site for verification that the specified and approved items are being installed. These are to be made available at any time per request of the Contracting Officer or the project COR.
- 22. Confined Space.** Several areas within hospital grounds are considered Confined Spaces and some of those require Permit. You must have submitted and received COR approval of a contractor implemented Confined Space program prior to any access of these areas.

23. Keys. No VA key will be provided to a contractor. Access must either be via VA employee or through a contractor locking system. (Reminder: **DO NOT** prop open a door or tape the strike, etc to get around the proper key use - such action may result in employee removal and contractor safety stand down.) The contractor must provide the COTR five spare keys to any contractor implemented locking system.

24. COR Notification. No contractor is permitted to perform on-site contract work without COTR knowledge.

3. It is the responsibility of the contractor to obtain a permit from the Washoe County Health District, Air Quality Management Division (1001 E. 9th Street, Building A, Suite 115A, Reno, NV 89512) (775) 784-7200 prior to commencement of renovation/demolition activities. The Air Quality Management Division requires an asbestos survey to be conducted by a U.S. EPA AHERA certified person before any potential asbestos containing materials are disturbed. The survey must be completed to the satisfaction of the Control Officer or additional samples may be required. A complete, signed copy of an asbestos survey report must be filed at the Washoe County District Health Department and an "Asbestos Assessment Acknowledgment Form" obtained before any permit for demolition or renovation, as noted above, is issued." The permit issued by the District must be provided to the government to begin work.

4. Weekly COR Construction Site Safety Inspection is to ensure the contractor is complying with safety and infectious controls. Complete the form below for each inspection.



WEEKLY SAFETY INSPECTION CHECKLIST FOR CONSTRUCTION/RENOVATION SITES



Project: _____ Location: _____

Date: _____ COR/Inspector: _____

	Hazard Exists (Mark X)		Comments
	Yes	No	
1. Have the construction workers been informed and trained regarding facility ID badges and smoking ?	<input type="checkbox"/>	<input type="checkbox"/>	_____
2. Is appropriate signage installed and followed?	<input type="checkbox"/>	<input type="checkbox"/>	_____
3. Are hazardous materials properly identified and Material Safety Data Sheets (MSDS) accessible?	<input type="checkbox"/>	<input type="checkbox"/>	_____
4. Is material storage satisfactory?	<input type="checkbox"/>	<input type="checkbox"/>	_____
5. Is means of egress clear in construction area?	<input type="checkbox"/>	<input type="checkbox"/>	_____
6. Is the integrity of the fire detection/sprinkler system being maintained?	<input type="checkbox"/>	<input type="checkbox"/>	_____
7. Are flammables stored in approved containers and properly secured?	<input type="checkbox"/>	<input type="checkbox"/>	_____
8. Is hot work authorization permit on site?	<input type="checkbox"/>	<input type="checkbox"/>	_____
9. Is there a fire watch during hot work?	<input type="checkbox"/>	<input type="checkbox"/>	_____
10. Are the construction workers wearing adequate personal protective equipment?	<input type="checkbox"/>	<input type="checkbox"/>	_____
11. Is proper ventilation installed (negative pressure)?	<input type="checkbox"/>	<input type="checkbox"/>	_____

12. Is construction site closed to public thoroughfare?	<input type="checkbox"/>	<input type="checkbox"/>	_____
13. Are construction partitions and fire/smoke barrier penetrations being maintained?	<input type="checkbox"/>	<input type="checkbox"/>	_____
14. Are good housekeeping practices being used in construction area and flammable/ combustible loads being kept at a minimum?	<input type="checkbox"/>	<input type="checkbox"/>	_____
15. Are scaffold handrails installed?	<input type="checkbox"/>	<input type="checkbox"/>	_____
16. Are all points of operation machinery guarded and utilized properly?	<input type="checkbox"/>	<input type="checkbox"/>	_____
17. Are fire extinguishers available and checked?	<input type="checkbox"/>	<input type="checkbox"/>	_____
18. Is electrical ground on equipment intact?	<input type="checkbox"/>	<input type="checkbox"/>	_____
19. Is there evidence of smoking or eating on site?	<input type="checkbox"/>	<input type="checkbox"/>	_____
20. Do the construction workers know the location of medical services, emergency room (ER)?	<input type="checkbox"/>	<input type="checkbox"/>	_____
21. Is the lockout/tag out program in place?	<input type="checkbox"/>	<input type="checkbox"/>	_____

ADDITIONAL NOTES FROM INSPECTION

1.2 STATEMENT OF BID ITEM(S)

- A. Work includes general construction, mechanical and electrical work, necessary for removal of existing data closet and construction of a new data closet.

1.3 SPECIFICATIONS AND DRAWINGS FOR CONTRACTOR

- A. AFTER AWARD OF CONTRACT, 1 set of specifications and drawings will be furnished. These drawings and specifications will consist of those returned by prospective bidders.
- B. Additional sets of drawings and specifications may be made by the Contractor, at Contractor's expense.

1.4 CONSTRUCTION SECURITY REQUIREMENTS

A. Security Plan:

- 1. The security plan defines both physical and administrative security procedures that will remain effective for the entire duration of the project.
- 2. The General Contractor is responsible for assuring that all sub-contractors working on the project and their employees also comply with these regulations.

B. Security Procedures:

- 1. General Contractor's employees shall not enter the project site without appropriate badge. They may also be subject to inspection of their personal effects when entering or leaving the project site.
- 2. For working outside the "regular hours" as defined in the contract, The General Contractor shall give 3 days notice to the Contracting Officer Representative (COR) so that VA Police can be notified that construction personnel will be on site after hours. This notice is separate from any notices required for utility shutdown described later in this section.

3. No photography of VA premises is allowed without written permission of the Contracting Officer.
4. VA reserves the right to close down or shut down the project site and order General Contractor's employees off the premises in the event of a national emergency. The General Contractor may return to the site only with the written approval of the Contracting Officer.

C. Key Control:

1. The General Contractor shall provide duplicate keys and lock combinations to the COR for the purpose of security inspections of every area of project including parked machines to take any emergency action.

D. Document Control:

1. Before starting any work, the General Contractor/Sub Contractors shall submit an electronic security memorandum describing the approach to following goals and maintaining confidentiality of "sensitive information".
2. The General Contractor is responsible for safekeeping of all drawings, project manual and other project information. This information shall be shared only with those with a specific need to accomplish the project.
3. All paper waste or electronic media such as CD's and diskettes shall be shredded and destroyed in a manner acceptable to the VA.
4. Notify Contracting Officer and Site Security Officer immediately when there is a loss or compromise of "sensitive information".

E. Motor Vehicle Restrictions

1. Vehicles are not authorized to park on VA property at any time. Access shall be restricted to picking up and dropping off materials and supplies.

1.5 FIRE SAFETY

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

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

E84-2009.....Surface Burning Characteristics of Building
Materials

2. National Fire Protection Association (NFPA):

10-2010.....Standard for Portable Fire Extinguishers

30-2008.....Flammable and Combustible Liquids Code

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

70-2011.....National Electrical Code

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

3. Occupational Safety and Health Administration (OSHA):

29 CFR 1926.....Safety and Health Regulations for Construction

B. Fire Safety Plan: Establish and maintain a fire protection program in accordance with 29 CFR 1926. Prior to start of work, prepare a plan detailing project-specific fire safety measures, including periodic status reports, and submit to COR and Facility Safety Manager for review for compliance with contract requirements in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES Prior to any worker for the contractor or subcontractors beginning work, they shall undergo a safety briefing provided by the general contractor's competent person per OSHA requirements. This briefing shall include information on the construction limits, VAMC safety guidelines, means of egress, break areas, work hours, locations of restrooms, use of VAMC equipment, etc. Documentation shall be provided to the Resident Engineer that individuals have undergone contractor's safety briefing.

- C. Site and Building Access: Maintain free and unobstructed access to facility emergency services and for fire, police and other emergency response forces in accordance with NFPA 241.
- D. Means of Egress: Do not block exiting for occupied buildings, including paths from exits to roads. Minimize disruptions and coordinate with COR and facility Safety Manager.
- E. Egress Routes for Construction Workers: Maintain free and unobstructed egress. Inspect daily. Report findings and corrective actions weekly to COR and facility Safety Manager.
- F. Fire Extinguishers: Provide and maintain extinguishers in construction areas and temporary storage areas in accordance with 29 CFR 1926, NFPA 241 and NFPA 10.
- G. Flammable and Combustible Liquids: Store, dispense and use liquids in accordance with 29 CFR 1926, NFPA 241 and NFPA 30.
- H. Existing Fire Protection: Do not impair automatic sprinklers, smoke and heat detection, and fire alarm systems, except for portions immediately under construction, and temporarily for connections. Provide fire watch for impairments more than 4 hours in a 24-hour period. Request interruptions in accordance with Article, OPERATIONS AND STORAGE AREAS, and coordinate with COR and facility Safety Manager.
- I. Smoke Detectors: Prevent accidental operation. Remove temporary covers at end of work operations each day. Coordinate with COR and facility Safety Manager.
- J. Hot Work: Perform and safeguard hot work operations in accordance with NFPA 241 and NFPA 51B. Coordinate with COR. Obtain permits from facility Safety Manager at least 72 hours in advance.
- K. Fire Hazard Prevention and Safety Inspections: Inspect entire construction areas weekly. Coordinate with, and report findings and corrective actions weekly to COR and facility Safety Manager.

- L. Smoking: Smoking is prohibited in and adjacent to construction areas inside existing buildings and additions under construction. In separate and detached buildings under construction, smoking is prohibited except in designated smoking rest areas.
- M. Dispose of waste and debris in accordance with NFPA 241. Remove from buildings daily.
- N. Perform other construction, alteration and demolition operations in accordance with 29 CFR 1926.

1.6 OPERATIONS AND STORAGE AREAS

- A. The Contractor shall confine all operations (including storage of materials) on Government premises to areas authorized or approved by the Contracting Officer. The Contractor shall hold and save the Government, its officers and agents, free and harmless from liability of any nature occasioned by the Contractor's performance.
- B. Working space and space available for storing materials shall be determined by the COR.
- C. Workmen are subject to rules of Medical Center applicable to their conduct.
- D. Execute work so as to interfere as little as possible with normal functioning of Medical Center as a whole, including operations of utility services, fire protection systems and any existing equipment, and with work being done by others.
 - 1. Do not store materials and equipment in other than assigned areas.
 - 2. Schedule delivery of materials and equipment to immediate construction working areas within buildings in use by Department of Veterans Affairs in quantities sufficient for not more than five work days. Provide unobstructed access to Medical Center areas required to remain in operation.
- E. Phasing: To insure such executions, Contractor shall furnish the COR with a schedule of approximate dates on which the Contractor intends to

accomplish work in each specific area of site, building or portion thereof (prior to start of any work). In addition, Contractor shall notify the Resident Engineer two weeks in advance of the proposed date of starting work in each specific area of site, building or portion thereof. Arrange such dates to insure accomplishment of this work in successive phases mutually agreeable to COR and Contractor. Overall project schedule must be updated each month. A two to three week look ahead schedule must be submitted by COB Friday of each week.

F. Utilities Services: Maintain existing utility services for Medical Center at all times. Provide temporary facilities, labor, materials, equipment, connections, and utilities to assure uninterrupted services. Where necessary to cut existing water, steam, gases, sewer or air pipes, or conduits, wires, cables, etc. of utility services or of fire protection systems and communications systems (including telephone), they shall be cut and capped at suitable places where shown; or, in absence of such indication, where directed by Resident Engineer.

1. No utility service such as water, gas, steam, sewers or electricity, or fire protection systems and communications systems may be interrupted without prior approval of COR. Electrical work shall be accomplished with all affected circuits or equipment de-energized. When an electrical outage cannot be accomplished, work on any energized circuits or equipment shall not commence without the Medical Center Director's prior knowledge and written approval. Refer to specification Sections 26 05 11, REQUIREMENTS FOR ELECTRICAL INSTALLATIONS, 27 05 11 REQUIREMENTS FOR COMMUNICATIONS INSTALLATIONS and 28 05 11, REQUIREMENTS FOR ELECTRONIC SAFETY AND SECURITY INSTALLATIONS for additional requirements.
2. Contractor shall submit a request to interrupt any such services to COR, in writing, 72 hours in advance of proposed interruption. Request shall state reason, date, exact time of, and approximate duration of such interruption.
3. Contractor will be advised (in writing) of approval of request, or of which other date and/or time such interruption will cause least inconvenience to operations of Medical Center. Interruption time approved by Medical Center may occur at other than Contractor's normal working hours.

4. Major interruptions of any system must be requested, in writing, at least 21 calendar days prior to the desired time and shall be performed as directed by the COR.
- G. Abandoned Lines: All service lines such as wires, cables, conduits, ducts, pipes and the like, and their hangers or supports, which are to be removed shall be remove in their entirety.
- H. To minimize interference of construction activities with flow of Medical Center traffic, comply with the following:
 1. Keep roads, walks and entrances to grounds, to parking and to occupied areas of buildings clear of construction materials, debris and standing construction equipment and vehicles.
- I. Coordinate the work for this contract with other construction operations as directed by COR. This includes the scheduling of traffic and the use of roadways, as specified in Article, USE OF ROADWAYS.

1.7 ALTERATIONS

- A. Survey: Before any work is started, the Contractor shall make a thorough survey with the COR of areas of buildings in which alterations occur and areas which are anticipated routes of access, and furnish a report to the Contracting Officer.
 1. Existing condition and types of resilient flooring, doors, windows, walls and other surfaces not required to be altered throughout building.
 2. Shall designate areas for working space, materials storage and routes of access to areas within buildings where alterations occur and which have been agreed upon by Contractor and COR.
- B. Any items required by drawings to be either reused or relocated or both, found during this survey to be nonexistent, or in opinion of COR, to be in such condition that their use is impossible or impractical, shall be furnished and/or replaced by Contractor with new items in

accordance with specifications which will be furnished by Government. Provided the contract work is changed by reason of this subparagraph B, the contract will be modified accordingly, under provisions of clause entitled "DIFFERING SITE CONDITIONS" (FAR 52.236-2) and "CHANGES" (FAR 52.243-4 and VAAR 852.236-88).

C. Protection: Provide the following protective measures:

2. Temporary protection against damage for portions of existing structures and grounds where work is to be done, materials handled and equipment moved and/or relocated.
3. Protection of interior of existing structures at all times, from damage, dust and weather inclemency. Wherever work is performed, floor surfaces that are to remain in place shall be adequately protected prior to starting work, and this protection shall be maintained intact until all work in the area is completed.

1.8 INFECTION PREVENTION MEASURES

- A. Implement the requirements of VAMC's Infection Control Risk Assessment (ICRA) team. ICRA Group may monitor dust in the vicinity of the construction work and require the Contractor to take corrective action immediately if the safe levels are exceeded.
- B. Establish and maintain a dust control program as part of the contractor's infection preventive measures in accordance with the guidelines provided by ICRA Group as specified here. Prior to start of work, prepare a plan detailing project-specific dust protection measures, including periodic status reports, and submit to COR and Facility ICRA team for review for compliance with contract requirements in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES.
- C. Medical center Infection Control personnel shall monitor for airborne disease (e.g. aspergillosis) as appropriate during construction. A baseline of conditions may be established by the medical center prior to the start of work and periodically during the construction stage to determine impact of construction activities on indoor air quality. In addition:

1. The RE and VAMC Infection Control personnel shall review pressure differential monitoring documentation to verify that pressure differentials in the construction zone and in the patient-care rooms are appropriate for their settings. The requirement for negative air pressure in the construction zone shall depend on the location and type of activity. Upon notification, the contractor shall implement corrective measures to restore proper pressure differentials as needed.
 2. In case of any problem, the medical center, along with assistance from the contractor, shall conduct an environmental assessment to find and eliminate the source.
- D. In general, following preventive measures shall be adopted during construction to keep down dust and prevent mold.
1. Dampen debris to keep down dust and provide temporary construction partitions in existing structures where directed by Resident Engineer. Blank off ducts and diffusers to prevent circulation of dust into occupied areas during construction.
 2. Do not perform dust producing tasks within occupied areas without the approval of the Resident Engineer. For construction in any areas that will remain jointly occupied by the medical Center and Contractor's workers, the Contractor shall:
 - a. Provide dust proof two hour fire-rated temporary drywall construction barriers to completely separate construction from the operational areas of the hospital in order to contain dirt debris and dust. Barriers shall be sealed and made presentable on hospital occupied side. Install a self-closing rated door in a metal frame, commensurate with the partition, to allow worker access. Maintain negative air at all times. A fire retardant polystyrene, 6-mil thick or greater plastic barrier meeting local fire codes may be used where dust control is the only hazard, and an agreement is reached with the Resident Engineer and Medical Center.

- b. HEPA filtration is required where the exhaust dust may reenter the breathing zone. Contractor shall verify that construction exhaust to exterior is not reintroduced to the medical center through intake vents, or building openings. Install HEPA (High Efficiency Particulate Accumulator) filter vacuum system rated at 95% capture of 0.3 microns including pollen, mold spores and dust particles. Insure continuous negative air pressures occurring within the work area. HEPA filters should have ASHRAE 85 or other prefilter to extend the useful life of the HEPA. Provide both primary and secondary filtrations units. Exhaust hoses shall be heavy duty, flexible steel reinforced and exhausted so that dust is not reintroduced to the medical center.
- c. Adhesive Walk-off/Carpet Walk-off Mats, minimum 600mm x 900mm (24" x 36"), shall be used at all interior transitions from the construction area to occupied medical center area. These mats shall be changed as often as required to maintain clean work areas directly outside construction area at all times.
- d. Vacuum and wet mop all transition areas from construction to the occupied medical center at the end of each workday. Vacuum shall utilize HEPA filtration. Maintain surrounding area frequently. Remove debris as they are created. Transport these outside the construction area in containers with tightly fitting lids.
- e. The contractor shall not haul debris through patient-care areas without prior approval of the Resident Engineer and the Medical Center. When, approved, debris shall be hauled in enclosed dust proof containers or wrapped in plastic and sealed with duct tape. No sharp objects should be allowed to cut through the plastic. Wipe down the exterior of the containers with a damp rag to remove dust. All equipment, tools, material, etc. transported through occupied areas shall be made free from dust and moisture by vacuuming and wipe down.
- f. Using a HEPA vacuum, clean inside the barrier and vacuum ceiling tile prior to replacement. Any ceiling access panels opened for investigation beyond sealed areas shall be sealed immediately when unattended.

- g. There shall be no standing water during construction. This includes water in equipment drip pans and open containers within the construction areas. All accidental spills must be cleaned up and dried within 12 hours. Remove and dispose of porous materials that remain damp for more than 72 hours.
 - h. At completion, remove construction barriers and ceiling protection carefully, outside of normal work hours. Vacuum and clean all surfaces free of dust after the removal.
- E. Final Cleanup:
 - 1. As work progresses, remove all construction debris from above ceiling, vertical shafts and utility chases that have been part of the construction.
 - 2. Perform HEPA vacuum cleaning of all surfaces in the construction area. This includes walls, ceilings, cabinets, furniture (built-in or free standing), partitions, flooring, etc.
 - 3. All new air ducts shall be cleaned prior to final inspection.

1.9 DISPOSAL AND RETENTION

- A. Materials and equipment accruing from work removed and from demolition of buildings or structures, or parts thereof, shall be disposed of as follows:
 - 1. Reserved items which are to remain property of the Government are noted on drawings or in specifications as items to be stored. Items that remain property of the Government shall be removed or dislodged from present locations in such a manner as to prevent damage which would be detrimental to re-installation and reuse. Store such items were directed by COR.
 - 2. Items not reserved shall become property of the Contractor and be removed by Contractor from Medical Center.
 - 3. Items of portable equipment and furnishings located in rooms and spaces in which work is to be done under this contract shall remain the property of the Government. When rooms and spaces are vacated by the Department of Veterans Affairs during the alteration period, such items which are NOT required by drawings and specifications to

be either relocated or reused will be removed by the Government in advance of work to avoid interfering with Contractor's operation.

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

- A. The Contractor shall protect from damage all existing improvements and utilities at or near the work site and on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. The Contractor shall repair any damage to those facilities, including those that are the property of a third party, resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in performing the work. If the Contractor fails or refuses to repair the damage promptly, the Contracting Officer may have the necessary work performed and charge the cost to the Contractor.

(FAR 52.236-9)

- B. Refer to Section 01 57 19, TEMPORARY ENVIRONMENTAL CONTROLS, for additional requirements on protecting vegetation, soils and the environment. Refer to Articles, "Alterations", "Restoration", and "Operations and Storage Areas" for additional instructions concerning repair of damage to structures and site improvements.

1.11 RESTORATION

- A. Remove, cut, alter, replace, patch and repair existing work as necessary to install new work. Except as otherwise shown or specified, do not cut, alter or remove any structural work, and do not disturb any ducts, plumbing, steam, gas, or electric work without approval of the COR. Existing work to be altered or extended and that is found to be defective in any way, shall be reported to the Resident Engineer before it is disturbed. Materials and workmanship used in restoring work, shall conform in type and quality to that of original existing construction, except as otherwise shown or specified.
- B. Upon completion of contract, deliver work complete and undamaged. Existing work (walls, ceilings, partitions, floors, mechanical and electrical work, lawns, paving, roads, walks, etc.) disturbed or

removed as a result of performing required new work, shall be patched, repaired, reinstalled, or replaced with new work, and refinished and left in as good condition as existed before commencing work.

- C. At Contractor's own expense, Contractor shall immediately restore to service and repair any damage caused by Contractor's workmen to existing piping and conduits, wires, cables, etc., of utility services or of fire protection systems and communications systems (including telephone) which are indicated on drawings and which are not scheduled for discontinuance or abandonment.
- D. Expense of repairs to such utilities and systems not shown on drawings or locations of which are unknown will be covered by adjustment to contract time and price in accordance with clause entitled "CHANGES" (FAR 52.243-4 and VAAR 852.236-88) and "DIFFERING SITE CONDITIONS" (FAR 52.236-2).

1.12 PHYSICAL DATA

- A. Data and information furnished or referred to below is for the Contractor's information. The Government shall not be responsible for any interpretation of or conclusion drawn from the data or information by the Contractor.
- B. Government does not guarantee that other materials will not be encountered nor that proportions, conditions or character of several materials will not vary from those indicated by explorations. Bidders are expected to examine site of work and logs of borings; and, after investigation, decide for themselves character of materials and make their bids accordingly. Upon proper application to Department of Veterans Affairs, bidders will be permitted to make subsurface explorations of their own at site.

1.13 RESERVED

1.14 RESERVED

1.15 AS-BUILT DRAWINGS

- A. The contractor shall maintain one full size set of as-built drawings which will be kept current during construction of the project, to include all contract changes, modifications and clarifications.

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

1.16 RESERVED**1.17 RESERVED****1.18 RESERVED**

- A. Use of new installed mechanical and electrical equipment to provide heat, ventilation, plumbing, light and power will be permitted subject to compliance with the following provisions:
 - 1. Permission to use each unit or system must be given by COR. If the equipment is not installed and maintained in accordance with the following provisions, the COR will withdraw permission for use of the equipment.
 - 2. Electrical installations used by the equipment shall be completed in accordance with the drawings and specifications to prevent damage to the equipment and the electrical systems, i.e. transformers, relays, circuit breakers, fuses, conductors, motor controllers and their overload elements shall be properly sized, coordinated and adjusted. Voltage supplied to each item of equipment shall be verified to be correct and it shall be determined that motors are not overloaded. The electrical equipment shall be thoroughly cleaned before using it and again immediately before final inspection including vacuum cleaning and wiping clean interior and exterior surfaces.
- B. Prior to final inspection, the equipment or parts used which show wear and tear beyond normal, shall be replaced with identical replacements, at no additional cost to the Government.
- C. This paragraph shall not reduce the requirements of the mechanical and electrical specifications sections.

1.19 RESERVED

1.20 RESERVED

1.21 RESERVED

1.22 RESERVED

- A. The Government shall make all reasonably required amounts of utilities available to the Contractor from existing outlets and supplies, as specified in the contract.

1.23 NEW TELEPHONE EQUIPMENT

The contractor shall coordinate with the work of installation of telephone equipment by others. This work shall be completed before the system is turned over to VA.

1.24 TESTS

- A. Pre-test systems and make corrections required for proper operation of such systems before requesting final tests. Final test will not be conducted unless pre-tested.
- B. Conduct final tests required in various sections of specifications in presence of an authorized representative of the Contracting Officer. Contractor shall furnish all labor, materials, equipment, instruments, and forms, to conduct and record such tests.
- C. All related components as defined above shall be functioning when any system component is tested. Tests shall be completed within a reasonably short period of time during which operating and environmental conditions remain reasonably constant.
- D. Individual test result of any component, where required, will only be accepted when submitted with the test results of related components and of the entire system.

1.25 INSTRUCTIONS

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

coverage. The Department of Veterans Affairs reserves the right to request the removal of, and substitution for, any instructor who, in the opinion of the Resident Engineer, does not demonstrate sufficient qualifications in accordance with requirements for instructors above.

1.26 RESERVED

1.27 RESERVED

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