

**SECTION 01 00 00
GENERAL REQUIREMENTS**

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SECTION 01 00 00
GENERAL REQUIREMENTS

1.1 GENERAL INTENTION

- A. Contractor shall completely prepare sites, including clearing, demolition and removal of any existing structures, and furnish labor and materials and perform work for improving parking capacities including development of new and/or expanded parking areas in multiple locations on the Coatesville VAMC campus, in accordance with attached specifications and drawings, Project #542-09-115.
- B. Visits to the site by Bidders may be made only by appointment with the Contracting Officer's Representative (COR).
- C. Offices of Willow Design, Inc., as Architect-Engineers, will render certain technical services during construction. Such services shall be considered as advisory to the Government and shall not be construed as expressing or implying a contractual act of the Government without affirmations by Contracting Officer or his duly authorized representative.
- D. All employees of 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.
- E. Prior to commencing work, 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.
- F. Training:
 - 1. Contractor's Superintendent shall have the 30-hour OSHA certified Construction Safety course and /or other relevant competency training, as determined by VA CO with input from the Infection Control Risk Assessment (ICRA) team.
 - 2. All employees of the contractor or subcontractors shall have the 10-hour OSHA certified Construction Safety course and /or other relevant competency training, as determined by VA CO with input from the Infection Control Risk Assessment (ICRA) team.
 - 3. Submit training records of all such employees for approval before the start of work.

1.2 STATEMENT OF BID ITEM(S)

- A. ITEM I, GENERAL CONSTRUCTION: Work includes general construction, alterations, roads, walks, grading, drainage, electrical work, utility systems, necessary removal of existing structures and construction and certain other items.

1.3 SPECIFICATIONS AND DRAWINGS FOR CONTRACTOR

- A. AFTER AWARD OF CONTRACT, one set of specifications and drawings will be furnished.
- B. Additional sets of drawings may be made by the Contractor, at Contractor's expense, from reproducible sepia prints furnished by Issuing Office. Such sepia prints shall be returned to the Issuing Office immediately after printing is completed.

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 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. 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 Contractor shall give 3 days notice to the Contracting Officer so that security escort arrangements can be provided for the employees. This notice is separate from any notices required for utility shutdown described later in this section.
 3. No photography of VA premises is allowed without written permission of the Contracting Officer.
 4. VA reserves the right to close down or shut down the project site and order Contractor's employees off the premises in the event of a national emergency. The Contractor may return to the site only with the written approval of the Contracting Officer.
- C. Document Control:
1. Before starting any work, the Contractor/Sub Contractors shall submit an electronic security memorandum describing the approach to

following goals and maintaining confidentiality of "sensitive information".

2. The 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.
4. Certain documents, sketches, videos or photographs and drawings may be marked "Law Enforcement Sensitive" or "Sensitive Unclassified". Secure such information in separate containers and limit the access to only those who will need it for the project. Return the information to the Contracting Officer upon request.
5. These security documents shall not be removed or transmitted from the project site without the written approval of Contracting Officer.
6. All paper waste or electronic media such as CD's and diskettes shall be shredded and destroyed in a manner acceptable to the VA.
7. Notify Contracting Officer and Site Security Officer immediately when there is a loss or compromise of "sensitive information".
8. All electronic information shall be stored in specified location following VA standards and procedures using an Engineering Document Management Software (EDMS).
 - a. Security, access and maintenance of all project drawings, both scanned and electronic shall be performed and tracked through the EDMS system.
 - b. "Sensitive information" including drawings and other documents may be attached to e-mail provided all VA encryption procedures are followed.

D. Motor Vehicle Restrictions

1. Vehicle authorization request shall be required for any vehicle entering the site and such request shall be submitted 24 hours before the date and time of access. Access shall be restricted to picking up and dropping off materials and supplies.
2. Separate permits shall be issued for Contractor and its employees for parking in designated areas only.

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 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 COR 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. Separate temporary facilities, such as trailers, storage sheds, and dumpsters, from existing buildings and new construction by distances in accordance with NFPA 241. For small facilities with less than 6 m (20 feet) exposing overall length, separate by 3m (10 feet).
- E. Temporary Electrical: Install, use and maintain installations in accordance with 29 CFR 1926, NFPA 241 and NFPA 70.
- F. Means of Egress: Do not block exiting for occupied buildings, including paths from exits to roads. Minimize disruptions and coordinate with COR and facility Safety Manager.
- G. Fire Extinguishers: Provide and maintain extinguishers in construction areas and temporary storage areas in accordance with 29 CFR 1926, NFPA 241 and NFPA 10.
- H. Flammable and Combustible Liquids: Store, dispense and use liquids in accordance with 29 CFR 1926, NFPA 241 and NFPA 30.

- I. 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 12 hours in advance. Designate contractor's responsible project-site fire prevention program manager to permit hot work.
- J. 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.
- K. Smoking: Smoking is prohibited except in designated smoking rest areas.
- L. Dispose of waste and debris in accordance with NFPA 241.
- M. Perform other construction 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. The Contractor shall, under regulations prescribed by the Contracting Officer, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by the Contracting Officer. When materials are transported in prosecuting the work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any Federal, State, or local law or regulation. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. The Contractor shall repair or pay for the repair of any damaged curbs, sidewalks, or roads.

(FAR 52.236-10)

- C. Working space and space available for storing materials shall be as determined by the COR.
- D. Workmen are subject to rules of Medical Center applicable to their conduct. Keep roads clear of construction materials, debris, standing construction equipment and vehicles at all times.
 - 1. Do not store materials and equipment in other than assigned areas.
 - 2. Schedule delivery of materials and equipment to immediate construction working areas in use by Department of Veterans Affairs in quantities sufficient for not more than two work days. Provide

unobstructed access to Medical Center areas required to remain in operation.

- E. Utilities Services: Where necessary to cut existing pipes, electrical wires, conduits, cables, etc., of utility services, or of fire protection systems or communications systems (except telephone), they shall be cut and capped at suitable places where shown; or, in absence of such indication, where directed by COR. All such actions shall be coordinated with the Utility Company involved:
1. Whenever it is required that a connection fee be paid to a public utility provider for new permanent service to the construction project, for such items as water, sewer, electricity, gas or steam, payment of such fee shall be the responsibility of the Government and not the Contractor.
- F. Phasing: To insure such executions, Contractor shall furnish the COR with a schedule of approximate phasing dates on which the Contractor intends to accomplish work in each specific site area or portion thereof. In addition, Contractor shall notify the COR two weeks in advance of the proposed date of starting work in each specific site area or portion thereof. Arrange such phasing dates to insure accomplishment of this work in successive phases mutually agreeable to Medical Center Director, COR and Contractor, as follows:

Phase I: PARKING AREA NEAR LOT B

Phase II: PARKING AREA NEAR LOT G

Phase III: PARKING AREA T-21

- G. Adjacent Parking Lots or Agreed Limited Portions(s) of existing parking areas will be vacated by Government in accordance with above phasing beginning immediately after date of receipt of Notice to Proceed and turned over to Contractor.
1. Contractor must submit a work plan for each phase to the COR two weeks in advance of start of work in each specific site area. This plan shall include clearly defined limits of work area and required limited clearances specifically noting which parking spaces are to be temporarily closed to make room for the work. Because of the nature of this project (a severe shortage of available parking), negotiations and revisions may be required in order to meet with COR approval. It will be necessary to tightly control down-time of any currently available parking spaces.
- H. Construction Fence: Before construction operations begin, Contractor shall provide a chain link construction fence, 2.1m (seven feet) minimum

height, around the construction area indicated on the drawings. Provide gates as required for access with necessary hardware, including hasps and padlocks. Fasten fence fabric to terminal posts with tension bands and to line posts and top and bottom rails with tie wires spaced at maximum 375mm (15 inches). Bottom of fences shall extend to 25mm (one inch) above grade. Remove the fence when directed by COR.

- I. 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 COR.
 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 Section 26 05 11, REQUIREMENTS FOR ELECTRICAL INSTALLATIONS for additional requirements.
 2. Contractor shall submit a request to interrupt any such services to COR, in writing, 48 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 15 calendar days prior to the desired time and shall be performed as directed by the COR.
 5. In case of a contract construction emergency, service will be interrupted on approval of COR. Such approval will be confirmed in writing as soon as practical.
 6. Whenever it is required that a connection fee be paid to a public utility provider for new permanent service to the construction

- project, for such items as water, sewer, electricity, gas or steam, payment of such fee shall be the responsibility of the Government and not the Contractor.
- J. Abandoned Lines: All service lines such as wires, cables, conduits, ducts, pipes and the like, and their hangers or supports, which are to be abandoned but are not required to be entirely removed, shall be sealed, capped or plugged.
 - K. 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. Wherever excavation for new utility lines cross existing roads, at least one lane must be open to traffic at all times.
 - 2. Method and scheduling of required cutting, altering and removal of existing roads, walks and entrances must be approved by the COR.
 - L. 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 DISPOSAL AND RETENTION

- A. Materials and equipment accruing from work removed and from demolition of buildings or structures, or parts thereof, shall be disposed of as follows:
 - 1. Reserved items which are to remain property of the Government are identified by attached tags or noted on drawings or in specifications as items to be stored. Items that remain property of the Government shall be removed or dislodged from present locations in such a manner as to prevent damage which would be detrimental to re-installation and reuse. Store such items where 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 areas in which work is to be done under this contract shall remain the property of the Government. When areas 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.

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

- A. The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed and which do not unreasonably interfere with the work required under this contract. The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during contract performance, or by the careless operation of equipment, or by workmen, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as directed by the Contracting Officer.
- B. The Contractor shall protect from damage all existing improvements and utilities at or near the work site and on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. The Contractor shall repair any damage to those facilities, including those that are the property of a third party, resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in performing the work. If the Contractor fails or refuses to repair the damage promptly, the Contracting Officer may have the necessary work performed and charge the cost to the Contractor.

(FAR 52.236-9)

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

1.9 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 COR before it is disturbed. Materials and workmanship used in restoring work, shall conform in type and quality to that of original existing construction, except as otherwise shown or specified.
- B. Upon completion of contract, deliver work complete and undamaged. Existing work (walls, ceilings, partitions, floors, mechanical and

electrical work, 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).

1.10 PROFESSIONAL SURVEYING SERVICES

A registered professional land surveyor or registered civil engineer whose services are retained and paid for by the Contractor shall perform services specified herein and in other specification sections. The Contractor shall certify that the land surveyor or civil engineer is not one who is a regular employee of the Contractor, and that the land surveyor or civil engineer has no financial interest in this contract.

1.11 LAYOUT OF WORK

- A. The Contractor shall lay out the work from Government established base lines and bench marks, indicated on the drawings, and shall be responsible for all measurements in connection with the layout. The Contractor shall furnish, at Contractor's own expense, all stakes, templates, platforms, equipment, tools, materials, and labor required to lay out any part of the work. The Contractor shall be responsible for executing the work to the lines and grades that may be established or indicated by the Contracting Officer. The Contractor shall also be responsible for maintaining and preserving all stakes and other marks established by the Contracting Officer until authorized to remove them. If such marks are destroyed by the Contractor or through Contractor's negligence before their removal is authorized, the Contracting Officer may replace them and deduct the expense of the replacement from any amounts due or to become due to the Contractor.

(FAR 52.236-17)

- B. Establish and plainly mark lines and grades that are reasonably necessary to properly assure that location, orientation, and elevations established for roads and parking lots are in accordance with lines and elevations shown on contract drawings.
- C. Following completion of general mass excavation and before any other permanent work is performed, establish and plainly mark (through use of appropriate batter boards or other means) sufficient additional survey control points or system of points as may be necessary to assure proper alignment, orientation, and grade of all major features of work. Survey shall include, but not be limited to, location of lines and grades:
 - 1. Such additional survey control points or system of points thus established shall be checked and certified by a registered land surveyor or registered civil engineer. Furnish such certification to the COR before any work is placed.
- D. During progress of work, Contractor shall have line grades checked and certified by a registered land surveyor or registered civil engineer as meeting requirements of contract drawings. Furnish such certification to the COR before any major items of concrete work are placed. In addition, Contractor shall also furnish to the COR certificates from a registered land surveyor or registered civil engineer that the following work is complete in every respect in accordance with attached specifications and drawings, Project #542-09-115.
 - 1. Lines and elevations of sewers and of all outside distribution systems.
 - 2. Lines of elevations of all swales.
 - 3. Lines and elevations of roads, streets and parking lots.
- E. Whenever changes from contract drawings are made in line or grading requiring certificates, record such changes on a reproducible drawing bearing the registered land surveyor or registered civil engineer seal, and forward these drawings upon completion of work to COR.
- F. The Contractor shall perform the surveying and layout work of this and other articles and specifications in accordance with the provisions of Article "Professional Surveying Services".

1.12 AS-BUILT DRAWINGS

- A. The contractor shall maintain two full size sets of as-built drawings which will be kept current during construction of the project, 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 COR's review, as often as requested.
- C. Contractor shall deliver two approved completed sets of as-built drawings to the COR within 15 calendar days after each completed phase and after the acceptance of the project by the COR.
- D. Paragraphs A, B, & C shall also apply to all shop drawings.

1.13 USE OF ROADWAYS

- A. For hauling, use only established public roads and roads on Medical Center property and, when authorized by the COR, such temporary roads which are necessary in the performance of contract work. Temporary roads shall be constructed by the Contractor at Contractor's expense. When necessary to cross curbing, sidewalks, or similar construction, they must be protected by well-constructed bridges.

1.14 TEMPORARY TOILETS

- A. Provide where directed, (for use of all Contractor's workmen) ample temporary sanitary toilet accommodations with suitable sewer and water connections; or, when approved by COR, provide suitable dry closets where directed. Keep such places clean and free from flies, and all connections and appliances connected therewith are to be removed prior to completion of contract, and premises left perfectly clean.

1.15 AVAILABILITY AND USE OF UTILITY SERVICES

- A. The Government shall make all reasonably required amounts of utilities available to the Contractor from existing outlets and supplies, as specified in the contract. The amount to be paid by the Contractor for chargeable electrical services shall be the prevailing rates charged to the Government. The Contractor shall carefully conserve any utilities furnished without charge.
- B. The Contractor, at Contractor's expense and in a workmanlike manner satisfactory to the Contracting Officer, shall install and maintain all necessary temporary connections and distribution lines, and all meters required to measure the amount of electricity used for the purpose of determining charges. Before final acceptance of the work by the Government, the Contractor shall remove all the temporary connections, distribution lines, meters, and associated paraphernalia.
- E. Electricity (for Construction and Testing): Furnish all temporary electric services.

1. Obtain electricity by connecting to the Medical Center electrical distribution system. The Contractor shall meter and pay for electricity required for electric cranes and hoisting devices, electrical welding devices and any electrical heating devices providing temporary heat. Electricity for all other uses is available at no cost to the Contractor.

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

1. Obtain water by connecting to the Medical Center water distribution system. Provide reduced pressure backflow preventer at each connection. Water is available at no cost to the Contractor.
2. Maintain connections, pipe, fittings and fixtures and conserve water-use so none is wasted. Failure to stop leakage or other wastes will be cause for revocation (at COR's discretion) of use of water from Medical Center's system.

1.16 HISTORIC PRESERVATION

Where the Contractor or any of the Contractor's employees, prior to, or during the construction work, are advised of or discover any possible archeological, historical and/or cultural resources, the Contractor shall immediately notify the COR verbally, and then with a written follow up.

CONSTRUCTION SAFETY STANDARDS

**DEPARTMENT OF VETERANS AFFAIRS MEDICAL CENTER
COATESVILLE, PENNSYLVANIA 19320**

UPDATED: 01/12

**MICHAEL CARCANAGUE, PE
DIRECTOR, FACILITIES ENGINEERING SERVICE**

ATTACHMENT #1

DEPARTMENT OF VETERANS AFFAIRS MEDICAL CENTER
COATESVILLE, PENNSYLVANIA 19320

GUIDELINES

This digest of construction safety and health requirements has been compliance of all Safety, Health and Fire Protection Regulations, which must be observed while working at this health care facility. The source of these regulations is:

1. U.S. Department of Labor Standards - OSHA 29 CFR 1910
(General Industry) 1995 Edition
2. U.S. Department of Labor Standards - OSHA 29 CFR 1926
(Construction Safety) 1995 Edition
3. National Fire Protection Association Codes
4. Department of Veterans Affairs Safety Policies and Procedures

The enforcement of all safety regulations contained within this digest is carried out by the Medical Center's Safety Officer representing the Director, Facilities Engineering Service. The Medical Center's Safety Officer will make inspections of contractor personnel performing work on the station, advising them of mandatory safety procedures. If flagrant violations are observed the Safety Officer can order shutdown of activities until he can contact the Director, Facilities Engineering Service to present his appraisal of the situation. Private contractor construction work at this facility is also subject to inspection by U.S. Department of Labor, Occupational Safety and Health Administration, Philadelphia Office.

Note: Construction Contractor are required to have employees tested for TB, treated as necessary, and provide a letter of certification that their employees are "TB FREE" with their other required documentation prior to the start of construction.

ATTACHMENT #1

STANDARDS

1. ABRASIVE GRINDING

A. All abrasive wheel bench and stand grinders shall be provided with safety guards which cover the spindle ends, nut and flange projections and are strong enough to withstand the effects of a bursting wheel.

B. An adjustable work rest of rigid construction shall be used on floor and bench-mounted grinders, fixed base, off-hand grinding machines with the work rest kept adjusted to a maximum clearance of 1/8 inch between rest and wheel.

C. All abrasive wheels shall be closely inspected and ring tested before mounting to ensure that they are free from defects.

2. ACCIDENT RECORD KEEPING REQUIREMENTS

A. Within 48 hours after its occurrence, an employee accident which is fatal to one or more employees or which results in the hospitalization of five or more employees shall be reported by the employer, either orally or in writing, to the nearest OSHA Area Director.

B. Records as prescribed in the record keeping requirements booklet shall be kept for all accidents that result in fatality, hospitalization, lost workdays, medical treatment, job transfer, termination or loss of consciousness.

C. All injuries sustained by contractors while on VA property must be reported to the Safety Office at Extension 2104.

3. AIR TOOLS

A. Pneumatic power tools shall be secured to the hose in a positive manner to prevent accidental disconnection.

B. Safety clips or retainers shall be securely installed and maintained on pneumatic impact tools to prevent them from being accidentally expelled.

C. The manufacturer's safe operating pressure for all hoses, fittings and utilization equipment shall not be exceeded.

4. BELT SANDING MACHINES

A. Belt sanding machines shall be provided with guards at each nip point where the sanding belt runs onto a pulley.

B. The unused run of the sanding belt shall be guarded against accidental contact.

5. BOILERS

Boilers provided by the contractor shall be deemed to be in compliance with the requirements of this part when evidence of current and valid certification by an insurance company or regulatory authority attesting to the safe installation, inspection and testing is presented.

6. CHAINS

(See wire ropes, chains, hooks, etc., #63).

7. COMPRESSED AIR, USE OF

Compressed air used for cleaning purposes shall not exceed 35 psi when the nozzle end is obstructed or dead ended and then only with effective chip guarding and personal protective equipment.

8. COMPRESSED GAS CYLINDERS - (OSHA PART 1926.350 Thru 1926.354)

A. Valve protection caps shall be in place when compressed gas cylinders are transported, moved or stored.

B. Cylinder valves shall be closed when work is finished and when cylinders are empty or are moved.

C. Compressed gas cylinders shall be secured in an upright position at all times, except when cylinders are actually being hoisted or carried.

D. Cylinders shall be kept at a safe distance or shielded from welding or cutting operations. Cylinders shall be kept at a safe distance from radiators or other heat sources or where they can contact an electrical circuit.

E. Oxygen and fuel gas regulators shall be in proper working order while in use.

9. CONCRETE, CONCRETE FORMS AND SHORING

A. All equipment and material used shall comply with ANSI A10.9 "Safety Requirements for Concrete Construction and Masonry Work".

B. Employees shall not be permitted to work above vertically protruding reinforcing steel, unless it has been protected to eliminate the hazard of impalement.

C. Powered and rotating-type concrete toweling machines that are manually guided shall be equipped with a dead man type operating control.

D. Formwork and shoring shall safely support all loads imposed during concrete placement. Drawings or plans of formwork and shoring systems shall be available at the job site.

10. CONVEYORS

A. Conveyor systems shall be equipped with an audible warning signal which can be sounded immediately before starting up the conveyor.

B. Where conveyors pass over work areas or aisles, guards shall be provided to protect employees from falling material.

C. Conveyors shall be in compliance with ANSI B20.1, "Safety Code for conveyors, cableways and related equipment".

11. CRANES AND DERRICKS

A. The contractor shall comply with the manufacturer's specifications and limitations.

B. Rated load capacities, recommended operating speeds and special hazard warnings or instructions shall be posted on all equipment and be visible from the operator's station.

C. Equipment shall be inspected before each use and all deficiencies corrected before further use.

D. Accessible areas within the swing radius of the revolving superstructure shall be barricaded.

E. Except where electrical distribution and transmission lines have been de-energized and visibly grounded at point of work, or where insulating barriers not a part of or an attachment to the equipment or machinery have been erected to prevent physical contact with the lines, no part of a crane or its load shall be operated within 10 feet of a line rated 50 kV or below; 10 feet + 0.4 inches for each 1 kV over 50 kV for lines rated over 50 kV; or twice the length of the line insulator, but never less than 10 feet.

F. (For rules pertaining to Rigging Equipment, see item #62).

12. DISPOSAL CHUTES

A. Whenever materials are dropped more than 20 feet to any exterior point, an enclosed chute shall be used.

B. When debris is dropped through holes in the floor without the use of chutes, the area where the material is dropped shall be enclosed with barricades not less than 42 inches high and not less than 6 feet back from the projected opening.

13. DRINKING WATER

A. An adequate supply of portable water will be provided in all places of employment.

B. Portable drinking water containers shall be capable of being tightly closed and be equipped with a tap.

C. The common drinking cup is prohibited.

D. Unused disposable cups shall be kept in a sanitary container and a receptacle shall be provided for used cups.

14. ELECTRICAL

A. All electrical work shall be in compliance with the current National Electrical Code, unless otherwise provided by OSHA regulations.

B. The noncurrent-carrying metal parts of fixed, portable and plug-connected equipment shall be grounded. Portable tools and appliances protected by an approved system of double insulation need not be grounded.

C. Extension cords shall be the 3-wire type, shall be protected from damage and shall not be fastened with staples, hung from nails, or suspended from wires. Splices shall have soldered wire connections with insulation equal to the cable. Worn or frayed cords shall not be used.

D. Exposed bulbs on temporary lights shall be guarded to prevent accidental contact, except where bulbs are deeply recessed in the reflector. Temporary lights shall not be suspended by their electric cords unless designed for this use.

E. Receptacles for attachment plugs shall be of the approved, concealed contact type. Where different voltages, frequencies, or types of current are supplied, receptacles shall be of such design that attachment plugs are not interchangeable.

F. Each disconnecting means for motors and appliances and each service feeder or branch circuit at the point where it originates shall be legibly marked to indicate its purpose, unless located and arranged so the purpose is evident.

15. EXCAVATING AND TRENCHING - (OSHA PART 1926.652)

A. Before opening any excavation, efforts shall be made to determine if there are underground utilities in the area and they shall be located and protected during the excavation operations.

B. The walls and faces of all excavations and trenches more than 4 feet deep, in which employees are exposed to danger from moving ground shall be guarded by a shoring system, sloping of the ground, or some other equivalent means.

C. A means of egress such as but not limited to a ladder, stairway or ramp shall be located in every excavation or trench 4 feet (1.22M) or more in depth so as to require no more than 25 feet (7.62M) of lateral travel for employees.

D. In excavations which employees may be required to enter, excavated or other material shall be effectively stored and retained at least 2 feet or more from the edge of the excavation.

E. Daily inspections of excavations will be made by a competent person. If evidence of possible cave-ins or slides is apparent, all work in the excavation shall cease until the necessary precautions have been taken to safeguard the employees.

16. EXPLOSIVES AND BLASTING

A. Only authorized and qualified persons shall be permitted to handle and use explosives.

B. Explosive material shall be stored in approved facilities as required by provisions of the Internal Revenue Service regulations published in 26 CFR 181, "Commerce in Explosive".

C. Smoking and open flames shall not be permitted within 50 feet of explosives storage magazines.

D. Procedures that permit safe and efficient loading shall be established before loading is started.

1.7 EYE AND FACE PROTECTION - (OSHA 1926.102)

A. Eye and face protection shall be provided when machines or operations present potential eye or face injury.

B. Eye and face protective equipment shall meet the requirements of ANSI Z87.1, "Practice for Occupational Eye and Face Protection".

C. Employees involved in welding operations shall be furnished with filter lenses of the proper shade number.

D. Employees exposed to laser beams shall be furnished suitable laser safety goggles which will protect for the specific wave-length of the laser and be of optical density (O.D.) adequate for the energy involved.

18. FIRE PROTECTION

A. The Medical Center's fire fighting program is to be followed throughout all phases of the construction and demolition work involved.

B. Fire fighting equipment will be conspicuously located and readily accessible at all times and be maintained in operating condition.

C. Carbon tetrachloride and other toxic vaporizing liquid fire extinguishers are prohibited.

D. All construction employees shall receive fire/safety orientation from their supervisors via the contractor.

19. FLAGMAN

A. When signs, signals and barricades do not provide the necessary protection on or adjacent to a highway or street, flagmen or other appropriate traffic controls shall be provided.

B. Flagman shall be provided with and shall wear a red or orange warning garment while flagging. Warning garments worn at night shall be of reflectorized material.

20. FLAMMABLE AND COMBUSTIBLE LIQUIDS

A. Only approved containers and portable tanks shall be used for storage and handling of flammable and combustible liquids.

B. No more than 25 gallons of flammable or combustible liquid shall be stored in a room outside of an approved storage cabinet. No more than 60 gallons of flammable or 120 gallons of combustible liquids shall be stored in any one- storage cabinet. No more than three storage cabinets may be located in a single storage area.

C. Inside storage rooms for flammable and combustible liquids shall be of fire-resistive construction, have self-closing fire doors at all openings, 4-inch sill or depressed floors, a ventilation system that provides at least six air changes within the room per hour and electrical wiring and equipment approved for Class 1, Division 1 locations.

D. Storage in containers outside buildings shall not exceed 1,100 gallons in any one pile or area. The storage area shall be graded to divert possible spills away from buildings or other exposures, or shall be surrounded by a curb or dike. Storage areas shall be located at least 20 feet from any building and shall be free from weeds, debris and other combustible materials.

E. Flammable liquids shall be kept in closed containers when not actually in use.

F. Conspicuous and legible signs prohibiting smoking shall be posted in service and refueling areas.

21. FLOOR OPENINGS, OPEN SIDES, HATCHWAYS, ETC.

A. Floor openings shall be guarded by a standard railing and toeboards or covers. In general, the railing shall be provided on all exposed sides, except at entrances to stairways. Temporary floor openings shall have standard railings.

B. Every open-sided floor or platform, 6 feet or more above adjacent floor or ground level, shall be guarded by a standard railing, or the equivalent, on all open sides except where there is entrance to a ramp, stairway, or fixed ladder.

C. Floor holes, into which persons can accidentally walk, shall be covered with a floor hole cover or standard strength and construction or be guarded by a standard railing with toeboard on all exposed sides.

D. Runways 4 feet or more shall have standard railings on all open sides, except runways more than 18 inches wide used exclusively for special purposes may have the railings on one side omitted where operating conditions necessitate.

22. GASES, VAPORS, FUMES, DUSTS AND MISTS

A. Exposure to toxic gases, vapors, fumes, dusts and mists at a concentration above those specified in the "Threshold Limit Values of Airborne Contaminants" of the ACGIH, shall be avoided.

B. Administrative or engineering controls must be implemented whenever feasible to comply with TLV's.

D. When engineering and administrative controls are not feasible to achieve full compliance, protective equipment or other protective measures shall be used to keep the exposure of employees to air contaminants within the limits prescribed. Any equipment and technical measures used for this purpose must first be approved for each particular use by a competent industrial hygienist or other technically qualified person.

23. GENERAL DUTY CLAUSE

A. Hazardous conditions or practices not covered in an OSHA standard may be covered under Section 5 (a) (1) of the Occupational Safety and Health Act of 1970 which states, "Each employee shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees".

24. GENERAL REQUIREMENTS

A. The contractor shall initiate and maintain such programs as may be necessary to provide for frequent and regular inspections of the job site, materials and equipment.

B. The contractor shall instruct each employee in the recognition and avoidance of unsafe conditions and in the regulations applicable to his work environment to control or eliminate any hazards or other exposure to illness or injury.

C. The contractor shall ensure that all employees are familiar with the requirements set forth in this standard.

25. HAND TOOLS - (OSHA PART 1926.300)

A. Contractors shall not issue or permit the use of unsafe hand tools.

B. Wrenches shall not be used when jaws are sprung to the point that slippage occurs. Impact tools shall be kept free of mushroomed heads. The wooden handles of tools shall be kept free of splinters or cracks and shall be kept tight in the tool.

C. Electric power operated tools shall either be approved double insulated or be properly grounded.

E. When power-operated tools are designed to accommodate guards, they shall be equipped

with such guards when in use.

26. HEAD PROTECTION - (OSHA PART 1926.100)

A. Head protective equipment (helmets) shall be worn in areas where there is a possible danger of head injuries from impact, flying or falling objects, or electrical shock and burns.

B. Helmets for protection against impact and penetration of falling and flying objects shall meet the requirements of ANSI Z89.1.

C. Helmets for protection against electrical shock and burns shall meet the requirements of ANSI Z89.2.

27. HEARING PROTECTION

A. Feasible engineering or administrative controls shall be utilized to protect employees against sound levels in excess of those shown in Table D-2.

B. When engineering or administrative controls fail to reduce sound levels within the limits of Table D-2, ear protective devices shall be provided and used.

C. Exposure to impulsive or impact noise should not exceed 140 dB peak sound pressure level.

D. In all cases, where the sound levels exceed the values shown in Table D-2 of the Safety and Health Standards, a continuing, effective hearing conservation program shall be administered.

E. Table D-2, Permissible Noise Exposures.

<u>DURATION PER DAY HOURS:</u>	<u>SOUND LEVEL dBA</u> <u>SLOW RESPONSE</u>
8.....	90
6.....	92
4.....	95
3.....	97
2.....	100
1-1/2.....	102
1.....	105
1/2.....	110
1/4 or less.....	115

F. Plain cotton is not an acceptable protective device.

28. HEATING DEVICES, TEMPORARY

A. Fresh air shall be supplied in sufficient quantities to maintain the health and safety of workers.

B. Solid fuel salamanders are prohibited in buildings and on scaffolds.

C. When heaters are used, they shall rest on suitable heat insulating material or at least 1-inch concrete, or equivalent and be located at least 10 feet from any combustible materials.

29. HOISTS, MATERIAL AND PERSONAL

A. The contractor shall comply with the manufacturer's specifications and limitations.

B. Rated load capacities, recommended operating speeds and special hazard warnings or instructions shall be posted on cars and platforms.

C. Material hoisting entrances of material hoists shall be protected by substantial full width gates or bars.

D. Hoisting doors or gates of personnel hoists shall be not less than 6 feet 6 inches high and be protected with mechanical locks, which cannot be operated from the landing side and are accessible only to persons on the car.

E. Solid overhead protective coverings shall be provided on the top of the hoist cage or platform.

30. HOOKS

(See Wire Ropes, Chains, Hooks, etc., #62).

31. HOUSEKEEPING

A. Form and scrap lumber with protruding nails and other debris, shall be kept clear from all work areas.

B. Combustible scrap and debris shall be removed at regular intervals.

- C. Containers shall be provided for collection and separation of all refuse. Covers shall be provided on containers used for flammable or harmful substances.
- D. Wastes shall be disposed of at frequent intervals.
- E. All external industrial waste bins shall be guarded by a fence no less than four feet in height. The length of the fence as such to prevent entry by staff or patients.

32. ILLUMINATION

- A. Construction areas, ramps, runways, corridors, offices, shops and storage areas shall be lighted to not less than the minimum illumination intensities listed in Table D-3 while any work is in progress.
- B. Table D-3: Minimum Illumination Intensities in Foot-Candles.

<u>Foot Candles:</u>	<u>Area or Operation:</u>
5.....	General construction area lighting.
3.....	General construction areas, concrete placement, excavation and waste areas, access ways, active storage areas, loading platforms, refueling and field maintenance areas.
5.....	Indoors; warehouses, corridors, hallways and exit ways.
5.....	Tunnels, shafts and general underground work areas (Exception: minimum of 10 foot-candles is required at tunnel and shaft heading during drilling, mucking and scaling. Bureau of Mines approved cap lights shall be acceptable for use in tunnel heading).
10.....	General construction plant and shops (e.g. bath plants, screening plants, mechanical and electrical equipment rooms, carpenter shops, rigging lofts and active storerooms, mess halls, indoor toilets, and workrooms).
30.....	First aid stations, infirmaries and offices.

33. JOINTERS

- A. Each hand-fed planer and jointer with a horizontal head shall be equipped with a cylindrical cutting head. The opening in the table shall be kept as small as possible.

B. Each hand-fed jointer with a horizontal cutting head shall have an automatic guard which will cover the section of the head on the working side of the fence or gage.

C. A jointer guard shall automatically adjust itself to cover the unused portion of the head and shall remain in contact with the material at all times.

D. Each hand-fed jointer with horizontal cutting head shall have a guard, which will cover the section of the head back of the gage or fence.

34. LADDERS

A. The use of ladders with broken or missing rungs or steps, broken or split side rails, or with other faulty or defective construction is prohibited. When ladders with such defects are discovered, they shall immediately be withdrawn from service.

B. Portable ladders shall be placed on a substantial base at a 4-1 pitch, have clear access at top and bottom, extend a minimum of 36 inches above the landing and be secured against movement while in use.

C. Portable metal ladders shall not be used for electrical work or where they may contact electrical conductors.

D. Job-made ladders shall be constructed for this intended use. Cleats shall be inset into side rails 1/2 inch, or filler blocks used. Cleats shall be uniformly spaced, 12 inches, top-to-top.

35. LASERS

A. Only qualified and trained employees shall be assigned to install, adjust and operate laser equipment.

B. Employees shall wear proper eye protection where there is a potential exposure to laser light greater than 0.005 watts (5 milli-watts).

C. Beam shutters or caps shall be utilized, or the laser turned off, when laser transmission is not actually required. When the laser is left unattended for a substantial period of time, such as during lunch hour, overnight, or at change of shifts, the laser shall be turned off.

D. Employees shall not be exposed to light intensities above: Direct staring - 1 micro-watt per square centimeter; incidental observing - 1 milli-watt per square centimeter; diffused reflected light - 2-1/2 watts per square centimeter. Employees shall

not be exposed to microwave power densities in excess of 10 milli-watts per square centimeter.

36. LIQUIFIED PETROLEUM GAS

- A. Each system shall have containers, valves, connectors, manifold valve assemblies and regulators of an approved type.
- B. All cylinders shall meet DOT specifications.
- C. Every container and vaporizer shall be provided with one or more approved safety relief valves or devices.
- D. Containers shall be placed on firm foundations and secured in an upright position.
- E. Portable heaters shall be equipped with an approved automatic device to shut off the flow of gas in the event of flame failure.
- F. Storage of LPG within buildings is prohibited.
- G. Storage locations shall have at least one 20-B:C rated fire extinguisher.

37. MEDICAL SERVICES AND FIRST AID

- A. The employer shall ensure the availability of medical personnel for advice and consultation on matters of occupational health.
- B. When a medical facility is not reasonably accessible for the treatment of injured employees, a person trained to render first aid shall be available at the work site.

38. MOTOR VEHICLES AND MECHANIZED EQUIPMENT

- A. All vehicles in use shall be checked at the beginning of each shift to assure that all parts, equipment and accessories that affect safe operation are in proper operating condition and free from defects. All defects shall be corrected before the vehicle is placed in service.
- B. No contractor shall use any motor vehicle, earthmoving, or compacting equipment having an obstructed view to the rear unless:
 - The vehicle has a reverse signal alarm distinguishable from the surrounding noise level, or

- The vehicles backed up only when an observer signals that it is safe to do so.

C. Heavy machinery, equipment or parts thereof shall be substantially blocked to prevent falling or shifting before employees are permitted to work under or between them.

39. NOISE

(See hearing protection, #27).

40. PERSONAL PROTECTIVE EQUIPMENT

A. The contractor is responsible for requiring the wearing of appropriate personal protective equipment in all operations where there is an exposure to hazardous conditions or where the need is indicated for using such equipment to reduce the hazard to the employees.

B. Lifelines, safety belts and lanyards shall be used only for employee safeguarding.

41. POWDER-ACTUATED TOOLS

A. Only trained employees shall be allowed to operate powder-actuated tools.

B. All powder-actuated tools shall be tested daily using the manufacturers recommended procedure to insure all safety devices are in proper working condition. Any tool found not in proper working order shall be removed from service until repaired.

C. Tools shall not be loaded until immediately before use.

42. POWER TRANSMISSION AND DISTRIBUTION

A. Existing conditions shall be determined before starting work by an investigation or a test.

B. Electric equipment and lines shall be considered energized until determined otherwise by testing or until grounding.

C. Operating voltage of equipment and lines shall be determined before working on or near energized parts.

D. Rubber protective equipment shall comply with the provisions of the ANSI series and shall be visually inspected before use.

43. POWER TRANSMISSION, MECHANICAL

A. Belts, gears, pulleys, sprockets, spindles, drums, flywheels, chains or other reciprocating, rotating, or moving parts of equipment shall be guarded if such parts are exposed to contact by employees or otherwise constitute a hazard.

B. Guarding shall meet the requirement of ANSI B15.1, "Safety Code for Mechanical Power Transmission Apparatus".

44. RADIATION, IONIZING

A. Pertinent Provisions of the Atomic Energy Commission's Standards for Protection Against Radiation (10 CFR Part 20), relating to protection against occupational radiation exposure, shall apply.

B. Persons handling radioactive materials or x-rays shall be specially trained, or licensed if required.

45. RAILINGS

A. A standard railing shall consist of top rail, intermediate rail and posts and have a vertical height of approximately 42 inches from upper surface of top rail to the floor, platform, etc.

B. The top rail of a railing shall be smooth-surfaced, with a strength to withstand at least 200 pounds. The intermediate rail shall be approximately halfway between the top rail and floor.

C. A stair railing shall be of construction similar to a standard railing, but the vertical height shall be not more than 34 inches nor less than 30 inches from upper surface of top rail to surface of tread in line with face of riser at forward edge of tread.

D. (See toeboards, #58).

46. RESPIRATORY PROTECTION

A. In emergencies, or when feasible engineering or administrative controls are not effective in controlling toxic substances, appropriate respiratory protective equipment shall be provided by the employer and shall be used.

B. Respiratory protective devices shall be approved by the National Institute for Occupational Safety and Health (NIOSH) or acceptable to the U.S. Department of Labor for the specific containment to which the employee is exposed.

C. Respiratory protective devices shall be appropriate for the hazardous material involved and the extent and nature of the work performed.

D Employees required to use respiratory protective devices shall be instructed in their use.

E. Respiratory protective equipment shall be inspected regularly and maintained in good condition.

47. ROLLOVER PROTECTIVE STRUCTURES (ROPS)

A. Rollover protective structures (ROPS) applies to the following types of materials handling equipment: To all rubber-tired, self-propelled scrapes, rubber-tired front-end loaders, rubber-tired dozers, wheel-type agricultural and industrial tractors, crawler-type loaders and motor graders, with or without attachments that are used in construction work. This requirement does not apply to side-boom pipe-laying tractors.

B. Above equipment manufactured on or after 9/1/72 shall have ROPS.

C. Above equipment manufactured on or after 1/1/72 shall have ROPS by 4/1/73.

D Above equipment manufactured between 7/1/71 and 12/31/71 shall have ROPS by 7/1/73

F. Above equipment manufactured between 7/1/70 and 6/30/71 shall have ROPS by 1/1/74

F. Above equipment manufactured between 7/1/69 and 6/30/70 shall have ROPS by 7/1/74.

G. Above equipment manufactured before 7/1/69 are not required to have ROPS as of this printing.

48. SAFETY NETS

A. Safety nets shall be provided when workplaces are more than 25 feet above the surface where the use of ladders, scaffolds cath platforms, temporary floors, safety lines, or safety belts are impractical.

B. Where nets are required, operations shall not be undertaken until the nets are in place and have been tested.

49. SAWS, BANDS

A. All portions of band saw blades shall be enclosed or guarded, except for the working portion of the blade between the bottom of the guide rolls and the table.

B. Band saw wheels shall be fully encased.

50. SAWS, PORTABLE CIRCULAR

- A. All portable, power-driven circular saws shall be equipped with guards above and below the base plate or shoe. The lower guard shall cover the saw to the depth of the teeth, except for the minimum arc required to allow proper retraction and contact with the work and shall automatically return to the covering position when the blade is removed from the work.
- B. (See #25 of this digest).

51. SAWS, RADIAL

- A. Radial saws shall have an upper guard, which completely encloses the upper half of the saw blade. The sides of the lower exposed portion of the blade shall be guarded by a device that will automatically adjust to the thickness of and remain in contact with the material being cut.
- B. Radial saws used for rippling shall have non-kickback fingers or dogs.
- C. Radial saws shall be installed so that the cutting head will return to the starting position when released by the operator.

52. SAWS, SWING OR SLIDING CUT-OFF

- A. All swing or sliding cut-off saws shall be provided with a hood that will completely enclose the upper half of the saw.
- B. Limit stops shall be provided to prevent swing or sliding type cut-off saws from extending beyond the front or back edges of the table.
- C. Each swing or sliding cut-off saw shall be provided with an effective device to return the saw automatically to the back of the table when released at any point of its travel.
- D. Inverted sawing of sliding cut-off saws shall be provided with a hood that will cover the part of the saw that protrudes above the top of the table or material being cut.

53. SAWS, TABLE

- A. Circular table saws shall have a hood over the portion of the saw above the table, so mounted that the hood will automatically adjust itself to the thickness of and remain in contact with the material being cut.

- B. Circular table saws shall have a spreader aligned with the blade, spaced no more than 1/2 inch behind the largest blade mounted in the saw. This provision does not apply when grooving, dadoing, or rabbeting.
- C. Circular table saws used for ripping shall have non-kickback finger or dogs.
- D. Feed rolls and blades of self-feed circular saws shall be protected by a hood or guard to prevent the hands of the operator from coming in contact with the in-running rolls at any time.

54. SCAFFOLDS - (OSHA PART 1926.451)

- A. Scaffolds shall be erected on sound, rigid footing, capable of carrying the maximum intended load.
- B. Scaffolds and their components shall be capable of supporting, without failure, at least 4 times the maximum intended load.
- C. Guardrails and toeboards shall be installed on all open sides and ends of platforms more than 10 feet above the ground or floor, except needle beam scaffolds and floats. Scaffolds 4 feet to 10 feet in height, having a minimum dimension in either direction of less than 45 inches, shall have standard guardrails installed on all open sides and ends of the platform.
- D. There shall be a screen with maximum 1/2 inch openings between the toeboard and the mid-rail, where persons are required to work or pass under the scaffold.
- E. All planking shall be scaffold grade as recognized by grading rules for the species of wood used. The maximum permissible spans for 2 x 10 inches or wider planks are shown in the following table:

MATERIAL

	FULL THICKNESS UNDRESSED LUMBER		NORMAL THICKNESS LUMBER		
Working load (p.s.f.).....	25	50	75	25	50
Permissible span (ft.).....	10	8	6	8	6

The maximum permissible span for 1-1/4 x 9 inch or wider plank of full thickness is 4 feet, with medium loading of 50 p.s.f.

- F. Scaffold planking shall be overlapped a minimum of 12 inches or secured from movement.

- G. Scaffold planks shall extend over their end supports not less than 6 inches, nor more than 12 inches.
- H. All scaffolding and accessories having any defective parts shall be immediately replaced or repaired.

55. STAIRS

- A. Every flight of stairs having four or more risers shall be equipped with standard stair railings or standard handrails.
- B. On all structures 20 feet or over in height, stairways, ladders, or ramps shall be provided.
- C. Rise height and tread width shall be uniform throughout any flight of stairs.
- D. Hollow pan-type stairs shall be filled to the level of the nosing with solid material.

56. STEEL ERECTION

- A. Permanent floors shall be installed so there is not more than eight stories between the erection floor and the upper-most permanent floor, except when structural integrity is maintained by the design.
- B. During skeleton steel erection, a tightly planked temporary floor shall be maintained within two stories or 30 feet, whichever is less - that portion of each tier of beams on which any work is being performed.
- C. During skeleton steel erection, where the requirements of the preceding paragraph cannot be met and where scaffolds are not used, safety nets shall be installed and maintained whenever the potential fall distance exceeds two stories or 25 feet.
- D. A safety railing of ½ inch wire rope or equivalent shall be installed around the perimeter of all temporarily floored buildings, approximately 42 inches high, during structural steel assembly.
- E. When placing structural members, the load line shall not be released until the member is secured by at least two bolts, or the equivalent, at each connection drawn up wrench tight.

57. STORAGE

- A. All materials stored in tiers shall be secured to prevent sliding, falling or collapse.

- B. Aisles and passageways shall be kept clean and in good repair.
- C. Storage of materials shall not obstruct exits.
- D. Materials shall be stored with due regard to their fire characteristics.
- G. Weeds and grass in outside storage areas shall be kept under control.
- H. Storage of flammable liquids inside buildings is not permitted.
- I. Storage of flammable liquids inside buildings is not permitted.
- J. All tools must be locked up when not in the immediate care of your employees, and at the end of each workday.

58. TOEBOARDS - (Floor and Wall Openings and Stairways).

- A. Railings protecting floor openings, platforms, scaffolds, etc., shall be equipped with toeboards wherever, beneath the open side, persons can pass, there is moving machinery, or there is equipment with which falling material could cause a hazard.
- C. A standard toeboard shall be at least 4 inches in height and may be of any substantial material either solid or open, with openings not to exceed 1 inch in greatest dimension.

59. TOILETS

- A. Toilets shall be provided according to the following; 20 or fewer persons - one facility; 20 or more persons - one toilet seat and one urinal per 40 persons; 200 or more persons - one toilet seat and one urinal per 50 workers.
- B. This requirement does not apply to mobile crews having transportation readily available to nearby toilet facilities.

60. WASHING FACILITIES

- A. The employer shall provide adequate washing facilities for employees engaged in the application of harmful substances or in operations where harmful contaminants are used.
- B. Washing facilities shall be in close proximity to the work-site and shall be equipped to remove all harmful substances.

61. WELDING, CUTTING AND HEATING

- A. Whenever any welding, burning, heating or cutting operation is to be performed, the contractor must secure a permit from the Fire Department. Requests for permits should be made by the contractor's authorized supervisory representative. Upon completion of the above operation, the permit shall be returned to the Fire Department.
- B. Contractors shall instruct employees in the safe use of welding equipment.
- C. Proper precautions (isolating welding and cutting, removing fire hazards from the vicinity, providing a fire watch, etc.) for fire prevention shall be taken in areas where welding or other "Hot Work" is being done. No welding, cutting or heating shall be done where the application of flammable paints, or the presence of other flammable paints, or the presence of other flammable compounds, or heavy dust concentrations creates a fire hazard.
- C. Welding and cutting operations shall be shielded by non-combustible, or flame-proof shields.
- E. When electrode holders are to be left unattended, the electrodes shall be removed and the holders shall be placed or protected so that they cannot make electrical contact with employees or conducting objects.
- F. All arc welding and cutting cables shall be completely insulated. There shall be no repairs or splices within 10 feet of the electrode holder, except where splices are insulated equal to the cable. Defective cable shall be repaired or replaced.
- G. Fuel gas and oxygen hose shall be easily distinguishable and shall not be interchangeable. Hoses shall be inspected at the beginning of each shift and shall be repaired or replaced if defective.
- H. Mechanical ventilation or airline respirators shall be provided when welding, cutting or heating:
 - ** zinc-, lead-, cadmium-, mercury-, or beryllium-bearing, based or coated materials in enclosed spaces.
 - ** stainless steel with inert equipment.
 - ** in confined spaces.
 - ** where an unusual condition can cause an unsafe accumulation of contaminants.

I. Proper eye protective equipment to prevent exposure of personnel shall be provided (See Item #17c).

J. (See Compressed Gas Cylinders, #8).

This Medical Center is equipped with sophisticated Smoke Detectors directly tied into our Fire Alarm System and the on-site Fire Department.

These on-site units can be activated very easily with any products of combustion and therefore can create an actual ALARM condition. Prior notification of all heat and smoke producing operations will enable us to shut down that particular FIRE ZONE until the contractors are finished with their work.

62. WIRE ROPES, CHAINS, ROPES

A. Wire ropes, chains, ropes and other rigging equipment shall be inspected prior to use and as necessary to assure their safety. Defective gear shall be removed from service.

B. Job or shop hooks and links, or makeshift fasteners, formed from bolts, rods, etc., or other such attachments.

C. When U-bolts are used for eye splices, the U-bolt shall be applied so that the "U" section is in contact with the dead end of the rope.

63. WOODWORKING MACHINERY

A. All fixed power-driven woodworking tools shall be provided with a disconnect switch that can be either locked or tagged in the off position.

B. All woodworking tools and machinery shall meet applicable requirements of ANSI 01.1, "Safety Code for Woodworking Machinery".

64. SMOKING POLICY

A. Smoking is not permitted in any building.

B. Smoking is permitted outside and in the smoking huts of our grounds.

65. DISCOVERY OF FIRE

- A. In the event a fire is discovered the following steps will be carried out:
- RESCUE** - Remove anyone in danger from the area.
 - ALARM** - Turn in the alarm.
 - CONTAIN** - Close doors prevent spread
 - EXTINGUISH** - Only if it is safe.
- B. All contractor personnel will familiarize themselves with all fire equipment and fire alarm pull box station locations.
- C. Dial 4911 and give location and type of fire.
- D. Evacuation plans are posted on each floor in the corridors for your use in the event of a fire. When the fire alarm sounds in the building where workmen are located, they must evacuate the building and wait for all clear signal from Fire Department.
- E. In the event of a fire **DO NOT** use elevators - use stairwell exits for means of escape.

66. CARDIAC ARREST

In the event a contractor's employee suffers an apparent heart attack a fellow employee should go to the nearest phone, dial "911" report that there is a possible cardiac arrest and give the exact location.

**Reference: 29 CFR1910.1926 OSHA Safety and
Health Standard**

67. CONFINED SPACE ENTRY - (OSHA 1910.146)

Any work which requires entry into a confined space, such as manholes, shall conform to OSHA 1910.146, Confined Space Entry, and this Medical Center's Confined Space Entry Program. Contractor will be informed of the hazards associated with such spaces by the VA Engineering Staff, and will supply the VA with evidence of an appropriate confined space program and worker training in Confined Space Entry. Contractor will supply all equipment necessary to work safely in a confined space. Contractor will coordinate entry into such spaces with VA Safety Staff.

68. LOCK OUT/TAG OUT HAZARDOUS ENERGY - (OSHA 1910.147)

All equipment shall be locked out or tagged out to protect against accidental or inadvertent operation when such operation could cause injury to personnel. Do not attempt to operate any switch, valve, or other energy isolating device where it is locked (or tagged) out.

If more than one crew, department, etc is involved, one authorized employee will coordinate the lock/out tag/out to ensure that all control measures are applied and there is continuing of protection for the group.

DEPT. OF VETERANS AFFAIRS (VA)***CUTTING AND WELDING PERMIT*****Date:**_____ **Bldg. #:**_____**Floor/Area:**_____

Welder's Name:_____

Shop/Company:_____

Nature of

Job:_____

Is Fire Watch required:_____

Fire

Watcher:_____

The location has been examined. The proper precautions have been taken.

Permission is granted for this work. (See precautions on reverse side)

Permit Expires:_____

SIGNED:_____

(Authorizing Fire Dept. Official)

Time Work Started:_____

Time Work Finished:_____

FINAL CHECK-UP

The work area was inspected 30 minutes after the work was completed and was found fire safe. The work area is to include all adjacent areas (including floors above and below), to which any fire or heat might spread.

SIGNED:

(Supervisor of Fire Watcher)

ATTACHMENT #2

ATTENTION

BEFORE APPROVING ANY CUTTING OR WELDING PERMIT, THE FIRE DEPARTMENT REPRESENTATIVE OR HIS APPOINTEE SHALL INSPECT THE WORK AREA AND CONFIRM THAT THE PROPER PRECAUTIONS HAVE BEEN TAKEN.

NECESSARY PRECAUTIONS

NO	YES
1. Cutting and welding equipment is in good condition. _____	_____
2. Sprinklers are in service. _____	_____
3. Floor swept clean within 35 ft of combustibles. _____	_____
4. Combustible floors wet down or shielded within 35 ft. _____	_____
5. All combustible or flammable liquids removed from the area. _____	_____
6. All wall and floor openings are covered and protected from open flame. _____	_____
7. Enclosed equipment cleaned of all combustibles. _____	_____
8. Enclosed containers purged of flammable vapors. _____	_____
9. Proper fire extinguisher provided in the work area. _____	_____
10. Personnel instructed in proper operation of fire alarm. _____	_____

11. Was fire watch provided? _____

12. Proper utilities secured such as LP gas, oxygen, natural gas, etc.? _____

13. Proper fire alarm equipment secured? _____

14. Final check up completed 30 minutes after work was completed? _____

I HAVE BEEN INFORMED AND UNDERSTAND THE PROVISIONS OF THIS PERMIT. I
UNDERSTAND THIS PERMIT CAN BE REVOKED AT ANY TIME IF I, OR MY
EMPLOYEES,
FAIL TO FOLLOW THE PRECAUTIONS OUTLINED ABOVE.

SIGNED: _____
(Supervisor's Signature & Date)

Coatesville VAMC
Construction Safety Checklist

1. Date ():	2. Evaluator(s) Name:		
3. Location: Contractor :			
A. Personal Protective Equipment	YES	NO	N/A
1. Hard Hats in use by all personnel? (NO WORKERS ON SITE)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Eye protection in use by all personnel?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Hearing Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Proper footwear and protective clothing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Fall protection in use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Respirator/Face masks in good use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Tools and Equipment	YES	NO	N/A
1. Tools and Equipment in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. All Equipment properly guarded?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Electrical Equip. connected properly, grounded in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Ladders in good condition; tied back; extended 3ft beyond landing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. Scaffolding	YES	NO	N/A
1. Scaffold in good repair; guardrails; toe boards and wire mesh in place?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Counter weights marked with weight and in proper ratio?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Scaffold tied back and tied in?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Passageway under scaffold blocked?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. Hazardous Chemicals / Air Contaminants	YES	NO	N/A
1. List of hazardous materials on job?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Employees are familiar with program?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Proper containers in use with correct labels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. MSDS's on job site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Lock out / Tag out procedures in place?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Permit required confined space procedures in place?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. Air Handling and HVAC	YES	NO	N/A
1. Negative pressure, with respect to the adjacent occupied space, is maintained within the construction area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Negative air machine(s) running?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Negative air filters changed daily or when fowled?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Negative air discharge hose intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. HVAC exhaust and supply ducts are covered during demolition?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Construction debris chutes are not adjacent to open windows or HVAC air intakes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

[illegible]

Pre-Construction Risk Assessment	
Infection Control / Safety Construction Permit	
Location of Construction: Coatesville VA Hospital, Coatesville, PA	Project Start Date:
Project Coordinator: Randy J McGuigan	Estimated Duration: approx. 60 days
Contractor Performing Work:	Permit Expiration Date:
Supervisor:	Telephone:
Description of project: General parking lot repair and expansions on lot B, G and T-21 (542-09-115: Project will include tree removal; grading, applying asphalt surface and painting designated parking spaces on lot G and B. New pick up shelters will be installed at both locations. Lot T-21 will be surfaced with concrete. Existing lot areas will be recoated, repaired and parking spaces to be marked.	
Construction Activities	
The following projects do not require completion of the Pre-construction risk assessment form:	
<ol style="list-style-type: none"> 1. Paint and wallpaper in business offices and non-patient areas. 2. Paint in patient room if closed for painting and less than 3 sq.ft. of wall needs patched. Filter for room unit changed after painting. 3. Installation of soap dispenser/needle box/paper towel holder in patient room 4. Repair of window blind. 5. Ceiling tile replacement for areas less than 50% of the total square footage of the room, if not in business offices and non-patient areas. 6. Ceiling tile replacement for area less than 5' X 2' tiles in a patient area if patient is out of the immediate area and clean up can be accomplished before patient returns. 7. Minimum repair of nurse call system/TV/Bed/Telephone. 8. Check or replace electric outlet. 9. Replace light bulb. 10. Unstop sink/commode with no water on floor. 11. Unstop commode when water on floor requires maintenance to have Housekeeping clean area immediately. 12. Repair medical gas outlet. (Front Body) 13. Air balance readings. 14. Check air-conditioning. 15. Intermediate jobs that create a moderate amount of dust inside room and is made negative by use of hepa-equipped unit with minimum 10 ACH, and all air discharged outside, hepa unit must run 2 hours after completion of job and Housekeeping must clean room before unit is removed from room. All work and use of hepa unit must be documented and copy forward to Infection Control and Safety. NOTE: all duct vents to be sealed off during work! 	
Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will there be noise generated that will impact a department adjacent to, above, or below the construction area?	
a. If so, these departments must be notified.	
b. How are you going to reduce the noise to an acceptable level?	
Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will there be vibration generated that will impact a department adjacent to, above, or below the construction area?	
a. If so, these departments must be notified each time this type of work will be performed.	
b. How are you going to reduce the vibration to an acceptable level?	
Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are Emergency Procedures in place and posted on each job for accidental events that could greatly impact Patient Care or Life Safety to the facility? Included in these procedures are such things as:	
<ul style="list-style-type: none"> • Emergency telephone numbers of key departments. • A plan that describes where main valves, switches, and controls are for the area in case of an emergency. • A plan for unexpected outages. 	
Environment	
Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are any of the following environmental hazards present?	
Will hazardous chemicals be used on this project? How will fumes and odors be controlled? MSDS Sheets are required.	
<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is asbestos abatement required on this job? If so, notify Safety and FES at the activation.	
<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will there be hot work done on this project? If there are, then a hot work permit must be posted on the job site. All hot work must have a fire watch assigned to each area while the hot work is being performed.	
<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will there be a Confined Space Entry required on this project? If so, the Medical Center's confined space entry program must be followed.	
Utility Failures	
Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will any of the following systems be out of service at any time during the project?	
<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Fire alarm (If out for more than 4 hours, Interim Life Safety Measures must be implemented.)	
<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Sprinkler (If out for more than 4 hours, Interim Life Safety Measures must be implemented.)	
<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Electrical	
<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Domestic water	
<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Oxygen	
<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Sewage	
<input checked="" type="checkbox"/>	<input type="checkbox"/>
• H V A C	

Yes	No	
	X	<p>Will there be any work that will require activation of the Interim Life Safety Measures during this project? Some things that trigger ILSM's to be implemented are but not limited to:</p> <ul style="list-style-type: none"> Any construction that impacts an EXIT or stairs, Any construction that impacts major breaches in a fire or smoke wall, Taking the main fire protection system out of service (sprinkler), Taking the main fire alarm system out of service, Taking the "area" fire or fire alarm systems out of service for more than 4 hours within a 24-hour period. <p>Implementation of the ILSM requires a fire watch and the ILSM forms to be completed (forms are to be obtained from the Medical Center Fire Department)</p>
Additional Safety Concerns		
Yes	No	
	Y	Will construction affect exit routes from occupied areas adjacent to construction site?
X		<p>Will project affect traffic patterns in area? <i>If yes, explain plan.</i> OVAL 2 PARKING LOT WILL BE CLOSED DURING CONSTRUCTION</p>
		The following must be completed prior to any construction activities.
	n/a	<ul style="list-style-type: none"> Separation wall must be constructed prior to project beginning.
	n/a	<ul style="list-style-type: none"> Fire protection systems must remain intact.
	n/a	<ul style="list-style-type: none"> Provide extra fire extinguishers in work areas.
	n/a	<ul style="list-style-type: none"> Maintain exit lights in work area.
X		<ul style="list-style-type: none"> Maintain negative air in construction area (24/7) through duration of project.
		<ul style="list-style-type: none"> There cannot be any return air from within the construction area to the rest of the building.
		<ul style="list-style-type: none"> Redirect exiting not to go through construction area.
		<ul style="list-style-type: none"> Put signs on doors into construction area "Construction Area - Do Not Enter".
		<ul style="list-style-type: none"> Maintain daily logs and keep a current Hot Work Permit.
X	n/a	<ul style="list-style-type: none"> Place tacky mats at doors exiting construction area.
		<ul style="list-style-type: none"> All debris removal must be by covered cart.
		<ul style="list-style-type: none"> Maintain clean and orderly work area.
	n/a	<ul style="list-style-type: none"> How will this project affect the departments above, below and adjacent to this project?
Air Quality and Infection Control		
The construction activity types are defined by the amount of dust that is generated, the duration of the activity, and the amount of shared HVAC systems. Contact CVAMC's Safety Office and Infection Preventionist if any activity is questionable under these guidelines.		
Yes	No	
X		<p>Will dust be generated during this project? <i>If yes, explain location of and plan for interim dust barriers or attach floor plan with barriers clearly marked.</i> WATER TRUCK IF EXTREME DUST CONDITIONS EXIST</p>
X		Will debris removal be necessary? <i>If yes, explain plan for debris removal and control.</i>
	Y	Negative airflow ventilation and filtration in place and assessed for effectiveness.
	Y	Exhaust fans in place and functioning.
	Y	Is supply duct to area closed and HEPA filtration unit in place and functioning in adjacent patient care area?
	X	Will work be done in a sterile area? <i>If so, how are you going to maintain sterile atmosphere in work area and access to and from work area?</i>
Type A Inspections and Non-Invasive Activities or Small scale, Short duration Activities		
Yes	No	
		Removal of ceiling tiles for visual inspection (limited to <25% of total area)
		Painting (limited sanding to <10% of area)
		Wall covering—Describe work to be done:
		Electrical trim work. Describe:
		Minor plumbing. Describe:
Type B Small scale, short duration activities that create minimal dust.		
Yes	No	
		Installation of telephone and computer cabling
		Access to chase spaces
		Sanding of walls for painting or wall covering (minor repairs—not sanding for drywall finishing)

Type C		Any work that generates a moderate to high level of dust or requires demolition or removal of any fixed building components or assemblies.
Yes	No	
		Sending of walls (>50% of surface area)-drywall finishing
		Removal of floor coverings Ceiling tile Casework (>50% of surface area) Describe:
		Cutting of walls or ceiling. Describe:
		New wall construction
		Minor ductwork or electrical work above ceilings
		Major cabling activities
		Activity cannot be completed within a single work shift
Type D		Major demolition and construction projects.
Yes	No	
Y		Will require heavy demolition or removal of a complete ceiling system
Y		New construction

GROUP 1 LOWEST	GROUP 2 MEDIUM	GROUP 3 HIGH	GROUP 4 HIGHEST
1.) Office areas 2.) Hallways 3.) FES/EMS areas Outside Y	1) Bldg. #69 Therapy areas 2) Respiratory Therapy 3) Outpatient Clinics 4) CBOC's 5) Mental Health Units	1) Pharmacy 2) Radiology/ CT Scanner 3) Urgent Care 4) Laboratories	1) CLCs (1B Med, 59B, 138A, 138B) 2) SPD; AMCU; 1B Medicine; 3) Respiratory Isolation Rooms

Contact the Infection Preventionist or Safety Office for risk assessment of any area not listed above.

CONSTRUCTION ACTIVITY (from previous page)		INFECTION CONTROL RISK GROUP (see above)	
Check type of activity		Check risk group	
	TYPE A: Inspection, non-invasive activity	X	GROUP 1: Lowest Risk
	TYPE B: Small scale, short duration projects		GROUP 2: Medium Risk
	TYPE C: Activity generates moderate to high levels of dust, requiring >1 work shift for completion		GROUP 3: High Risk
X	TYPE D: Major duration and construction activities Requiring consecutive work shifts		GROUP 4: Highest Risk

CLASSIFICATION OF REQUIRED PREVENTIVE MEASURES

CONSTRUCTION ACTIVITY- INFECTION CONTROL RISK GROUP	TYPE "A"	TYPE "B"	TYPE "C"	type "d"
Group 1	I	I	II	III/IV
Group 2	I	I	III	IV
Group 3	II	III	III/IV	IV
Group 4	III	III/IV	III/IV	IV

An Infection Control—Safety Construction Permit is required for Class III or higher projects. Refer to shaded area on Construction Activity/Risk Group Matrix (above).

CLASS I	1. Execute work by methods to minimize raising dust from construction operations.	2. Immediately replace any ceiling tile displaced for visual inspection.
CLASS II	1. Provide active means to prevent air-borne dust from dispersing into atmosphere. 2. Water mist work surfaces to control dust while cutting. 3. Seal unused doors with duct tape. 4. Block off and seal air vents. 5. Wipe surfaces with disinfectant.	6. Contain construction waste before and during transport in tightly covered containers. 7. Wet mop and/or vacuum with HEPA filtered vacuum before leaving work area. 8. Place dust mat at entrance and exit of work area as needed. 9. Remove or isolate HVAC system in areas where work is being performed.

<p>CLASS III</p> <p>X</p>	<ol style="list-style-type: none"> 1. Obtain infection control permit before construction begins. 2. Isolate HVAC system in area where work is being done to prevent contamination of the duct system. 3. Complete all critical barriers before construction begins. 4. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units. 5. Contain construction waste before and during transport in tightly covered containers. 6. Seal holes, pipes, conduits, etc. appropriately. 	<ol style="list-style-type: none"> 7. Place dust mat at entrance and exit of work area. Replace as needed. (8) Do not remove barriers from work area until completed project is inspected by Safety and Epidemiology Depts. and thoroughly cleaned. <p>After work is completed:</p> <ol style="list-style-type: none"> 9. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. 10. Remove isolation of HVAC system.
<p>Class IV</p>	<ol style="list-style-type: none"> 1. Obtain infection control permit before construction begins. 2. Isolate HVAC system in area where work is being done to prevent contamination of duct system. 3. Complete all critical barriers or implement control cube method before construction begins. 4. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units. 5. Seal holes, pipes, conduits, and punctures appropriately. 6. Construct anteroom and require all personnel to pass through this room so they can be vacuumed using a HEPA vacuum cleaner before leaving work site or they can wear cloth or paper coveralls that are removed each time they leave the work site. 	<ol style="list-style-type: none"> All personnel entering work site are required to wear shoe covers. 8. Contain construction waste before and during transport in tightly covered containers. Cover transport receptacles or carts. Tape covering. 9. Do not remove barriers from work area until completed project is inspected by Safety and Epidemiology Depts. and thoroughly cleaned. <p>After work is completed:</p> <ol style="list-style-type: none"> 10. Vacuum work area with HEPA filtered vacuums. 11. Wet mop with disinfectant. 12. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. 13. Remove isolation of HVAC system.
<p>Additional concerns for all classes:</p> <ol style="list-style-type: none"> 1. Maintain manpower and equipment including dust mops, wet mops, brooms, buckets, and clean wiping rags for cleaning fine dust from floors and adjacent occupied areas. 2. Clean up dust, MUD tracked outside of construction area immediately. 3. Removal of debris must be in covered containers. 		
<p>Additional Requirements or Concerns:</p> <p>TB risk assessment: for 2012 is minimal risk based off of 2011 County and facility cases</p> <ul style="list-style-type: none"> • OVAL 2 PROVIDE TRAFFIC BARRICADES AND DIRECTIONAL SIGNAGE • INSURE CONSTRUCTION FENCING IS MAINTAINED • ALL PROJECT DUMPSTERS ARE KEPT INSIDE CONSTRUCTION FENCE • PRIOR TO EXCAVATION CONDUCT UTILITY MARK OUTS OF WORK AREAS • PRIOR TO TREE REMOVAL WORK HOLD SAFETY MEETING WITH VA SAFETY OFFICER, COTR, PRIME AND SUB CONTRACTOR. <p>THIS PROJECT IS CONSIDERED TYPE D , GROUP 1, CLASS III.</p>		
<p>Permit Request By</p> <p><i>Randy J. McE...</i></p> <p>Date: <i>3/22/12</i></p>	<p>Safety Approval</p> <p><i>Frank Taylor</i></p> <p>Date: <i>3/22/12</i></p>	<p>Infection Preventionist Approval</p> <p><i>Forrest Lee Myers, PhD, CIC</i></p> <p>Date: <i>3/22/2012</i></p>

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