

## VA Long Beach Healthcare System INFECTION CONTROL RISK ASSESSMENT FOR CONSTRUCTION AND RENOVATION

PROJECT #: Bldg. 5C REMOVE AND REPLACE Rooftop AC unit.  
Project: VA262-18-AP-10552

**Step One:**  
Using the follow table, identify the Type of Construction Project Activity (Types A-D)

Type A	<p><b>Inspection and Non-invasive activities, including, but not limited to:</b></p> <ul style="list-style-type: none"> <li>Removal of ceiling tiles for visual inspections where no dust or asbestos is expected (Limited to 1 tile per 50 square feet)</li> <li>Painting, but not sanding</li> <li>Wall covering, electrical trim work, minor plumbing, and activities which do not generate dust or require cutting of walls or access to ceilings other than for visual inspection</li> </ul>
Type B	<p><b>Small scale, short duration activities which create minimal dust, including but not limited to:</b></p> <ul style="list-style-type: none"> <li>Installation of electrical, plumbing, HVAC, telephone and computer cabling</li> <li>Access to chase spaces where asbestos is not present</li> <li>Cutting of walls or ceiling where dust migration can be controlled</li> </ul> <p><b>Work that generates a moderate to high level of dust or requires demolition or removal of any fixed building components or assemblies, including but not limited to:</b></p> <ul style="list-style-type: none"> <li>Sanding of surfaces for painting or wall covering</li> <li>Removal of floor coverings, ceiling tiles, and casework</li> <li>New wall construction</li> <li>Minor duct work or electrical work above ceilings</li> <li>Major cabling activities</li> <li>Any type A, B or C activity that cannot be completed within a single work shift</li> </ul>
Type C	<p><b>Major demolition and construction projects, including but not limited to:</b></p> <ul style="list-style-type: none"> <li>Activities requiring heavy demolition or removal of a complete utility or cabling system</li> <li>New construction and renovation</li> <li>Friable asbestos and mold abatement projects</li> <li>Activities which require consecutive work shifts</li> </ul>
Type D	<p><b>Major demolition and construction projects, including but not limited to:</b></p> <ul style="list-style-type: none"> <li>Activities requiring heavy demolition or removal of a complete utility or cabling system</li> <li>New construction and renovation</li> <li>Friable asbestos and mold abatement projects</li> <li>Activities which require consecutive work shifts</li> </ul>

Adapted from the American Society for Healthcare Engineering (ASHE) website 7/2014

**Step 2:**  
Identify the Patient Risk Group that will be affected. If more than one risk group will be affected, select the higher group. For all construction classes, patients must be removed from the room while work is performed

Low	Medium	High Risk	Highest Risk
<ul style="list-style-type: none"> <li>Administrative office areas</li> <li>Industrial spaces</li> <li>Classrooms</li> <li>Meeting rooms</li> <li>Atrium</li> <li>Elevators</li> <li>Warehouse</li> <li>Laundry</li> <li>Chapel</li> <li>Outside space</li> <li>Lobby</li> <li>Research</li> </ul>	<ul style="list-style-type: none"> <li>Cardiology</li> <li>Internal medicine</li> <li>EKG</li> <li>GI lab</li> <li>Nuclear medicine</li> <li>Physical medicine and rehabilitation (PT, OT, KT)</li> <li>Radiology/CT scan</li> <li>Radiation Therapy</li> <li>MRI</li> <li>Outpatient Clinics</li> <li>Primary/Specialty Care Clinics</li> <li>Surgical clinics</li> <li>Hopitel</li> <li>Mental Health Outpatient.</li> </ul>	<ul style="list-style-type: none"> <li>Emergency Department</li> <li>Clinical Laboratory</li> <li>Pharmacy</li> <li>Dental</li> <li>Same Day Surgery</li> <li>S-10</li> <li>N-4</li> <li>SCI-T2,V1,V2</li> <li>CLC-X-pod, Z-pod,</li> <li>Z-Pod R</li> <li>Blind Rehab</li> <li>Mental Health-L1, M1</li> </ul>	<ul style="list-style-type: none"> <li>S-8</li> <li>SPS</li> <li>CCCU</li> <li>OR</li> <li>Infusion Clinic</li> <li>DOU</li> <li>PACU</li> <li>Cardiac Cath Lab</li> <li>Negative Pressure rooms</li> <li>Bronchoscopy lab</li> <li>Dialysis</li> </ul>

VA262-18-AP-10552

**Step 3:**

Match the Patient Risk Group with the planned Construction Project Type (A, B, C, D) to find the Class of Precautions (I – IV)

Patient Risk Group	Construction Project Type			
	Type A	Type B	Type C	Type D
Low Risk	I	II	II	III/IV
Medium Risk	I	II	III	IV
High Risk	I	II	III/IV	IV
Highest Risk	II	III/IV	III/IV	IV

Note: Risk classifications of Class III or IV requires an Infection Control signature for permit.

Note: The Infection Prevention and Control Coordinator and the Safety and Occupational Health Professionals are the only team members with the authority to modify the ICRA.

Adapted from the American Society for Healthcare Engineering (ASHE) website 7/2014

**Description of Required Infection Control Precautions by Class**    YA262-18-AP-10552

	<b>During Construction Project</b>	<b>Upon Completion of Project</b>
<p><b>Class I</b></p>	<ol style="list-style-type: none"> <li>1. Execute work by methods to minimize raising dust.</li> <li>2. Immediately replace ceiling tile if displaced.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean work area upon completion of task.</li> <li>2. Remove all visible debris with a wet towel and/or mop.</li> <li>3. Environmental Management Service to wipe work surfaces and floors with disinfectant.</li> </ol>
<p><b>Class II</b></p>	<ol style="list-style-type: none"> <li>1. Provide active means to prevent airborne dust from dispersing into atmosphere.</li> <li>2. Water-mist work surfaces to control dust while cutting.</li> <li>3. Seal unused doors with duct tape.</li> <li>4. Place sticky mat at entrance and exit of work area</li> <li>5. Remove or isolate HVAC system in areas where work is being performed.</li> <li>6. Cover construction waste before transport in covered containers.</li> </ol>	<ol style="list-style-type: none"> <li>1. Wipe work surfaces with cleaner/disinfectant.</li> <li>2. Contain construction waste before transport in tightly covered containers.</li> <li>3. Wet mop and/or vacuum with HEPA filtered vacuum before leaving work area.</li> <li>4. Upon completion, restore HVAC system where work was performed.</li> <li>5. Environmental Management Service to wipe work surfaces and floors with disinfectant.</li> </ol>
<p><b>Class III</b></p>	<ol style="list-style-type: none"> <li>1. Remove or Isolate HVAC system in area where work is being done to prevent contamination of duct system.</li> <li>2. Complete all critical barriers i.e. sheetrock, plywood, plastic, to seal area from non-work area or implement control cube method (cart with plastic covering and sealed connection to work site with HEPA vacuum for vacuuming prior to exit) before construction begins.</li> <li>3. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units.</li> <li>4. Negative pressure monitoring devices should be visible from outside the worksite and readings should be documented as least daily.</li> <li>5. Contain construction waste before transport in tightly covered containers.</li> <li>6. Maintain clean sticky mat at entrance and exit of work area.</li> <li>7. Cover construction waste before transport in covered containers.</li> </ol>	<ol style="list-style-type: none"> <li>1. Do not remove barriers from work area until completed project is inspected by the Safety and Infection Prevention &amp; Control Department and thoroughly cleaned by the Environmental Management Service</li> <li>2. Remove barrier material carefully to minimize spreading of dirt and debris associated with construction.</li> <li>3. Contain construction waste before transport in tightly covered containers.</li> <li>4. Cover transport receptacles or carts. Tape covering unless solid lid.</li> <li>5. Vacuum work area with HEPA filtered vacuums.</li> <li>6. Wet mop area with cleaner/disinfectant.</li> <li>7. Upon completion, restore HVAC system where work was performed.</li> </ol>
<p><b>Class IV</b></p>	<ol style="list-style-type: none"> <li>1. Install and maintain construction critical barriers and ceiling protection.</li> <li>2. Isolate HVAC system within work areas to prevent contamination of duct system.</li> <li>3. Seal doors opening to adjacent areas with duct tape.</li> <li>4. Seal holes, pipes, conduits, and punctures.</li> <li>5. Block off and seal HVAC registers, grills and any openings in ductwork to remain.</li> <li>6. Maintain negative pressure within work site utilizing HEPA equipped air filtration units.</li> <li>7. Negative pressure monitoring devices should be visible from outside the worksite and readings should be documented as least daily.</li> <li>8. Maintain clean sticky mat at entrance and exit of work area.</li> <li>9. Cover construction waste before transport in covered and sealed containers.</li> <li>10. Provide monitoring and clearance samples for mold/asbestos.</li> <li>11. 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 work site.</li> <li>12. All personnel entering work site are required to wear shoe covers. Shoe covers must be changed each time the worker exits the work area.</li> </ol>	<ol style="list-style-type: none"> <li>1. Do not remove barriers from work area until completed project is inspected by the Safety and Infection Prevention &amp; Control Department and thoroughly cleaned by the Environmental Management Service</li> <li>2. Remove barrier material carefully to minimize spreading of dirt and debris associated with construction.</li> <li>3. Contain construction waste before transport in tightly covered containers.</li> <li>4. Cover transport receptacles or carts. Tape covering unless solid lid.</li> <li>5. Vacuum work area with HEPA filtered vacuums.</li> <li>6. Wet mop area with cleaner/disinfectant.</li> <li>7. Upon completion, restore HVAC system where work was performed.</li> </ol>

**VA Long Beach Healthcare System  
Infection Control Construction Permit**      VA262-18-AP-10552

<b>Location of Construction: B 5C</b>		<b>Project Start Date:</b>
<b>Project Manager: Julio Bernabe</b>		<b>Estimated Duration:</b>
<b>Contractor Performing Work:</b>		<b>Permit Expiration Date: 7/30/2018</b>
<b>Construction Type:</b>	<b>Risk Group:</b>	<b>Precaution Class:</b>
<b>Class I</b>	<ol style="list-style-type: none"> <li>Execute work by methods to minimize raising dust.</li> <li>Immediately replace ceiling tile if displaced.</li> </ol>	
<b>Class II</b> AT 6/16/18	<ol style="list-style-type: none"> <li>Provide active means to prevent airborne dust from dispersing into atmosphere.</li> <li>Water-mist work surfaces to control dust while cutting.</li> <li>Seal unused doors with duct tape.</li> </ol>	<ol style="list-style-type: none"> <li>Place tacky mat at entrance and exit of work area</li> <li>Remove or isolate HVAC system in areas where work is being performed.</li> <li>Cover construction waste before transport in covered containers.</li> </ol>
<b>Class III</b>	<ol style="list-style-type: none"> <li>Remove or Isolate HVAC system in area where work is being done to prevent contamination of duct system.</li> <li>Complete all critical barriers i.e. sheetrock, plywood, plastic, to seal area from non-work area or implement control cube method (Cart with plastic covering and sealed connection to work site with HEPA vacuum for vacuuming prior to exit) before construction begins.</li> </ol>	<ol style="list-style-type: none"> <li>Maintain negative air pressure within work site utilizing HEPA equipped air filtration units.</li> <li>Negative pressure monitoring devices should be visible from outside the worksite and readings should be documented as least daily.</li> <li>Contain construction waste before transport in tightly covered containers.</li> <li>Maintain clean walk off mats at entrance and exit of work area.</li> <li>Cover construction waste before transport in covered containers</li> </ol>
<b>IC Initials</b>		
<b>Class IV</b>	<ol style="list-style-type: none"> <li>Install and maintain construction critical barriers and ceiling protection.</li> <li>Isolate HVAC system within work areas to prevent contamination of duct system.</li> <li>Seal doors opening to adjacent areas with duct tape.</li> <li>Seal holes, pipes, conduits, and punctures.</li> <li>Block off and seal HVAC registers, grills and any openings in ductwork to remain.</li> <li>Maintain negative pressure within work site utilizing HEPA equipped air filtration units.</li> <li>Negative pressure monitoring devices should be visible from outside the worksite and readings should be documented as least daily.</li> <li>Maintain clean walk off mats at entrance and exit of work area.</li> <li>Cover construction waste before transport in covered and sealed containers.</li> </ol>	<ol style="list-style-type: none"> <li>Cover construction waste before transport in covered and sealed containers.</li> <li>Provide monitoring and clearance samples for mold/astobestos.</li> <li>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 work site.</li> <li>All personnel entering work site are required to wear shoe covers. Shoe covers must be changed each time the worker exits the work area.</li> </ol>
<b>Date</b>		
<b>IC Initials</b>		
<b>Exceptions or additions to this permit are noted on the attached page.</b>		
<b>Project Manager: JULIO BERNABE</b>		<b>Approval By Safety and Occupational Health Professional:</b>
<b>Date:</b>		<b>Date:</b>
<b>Approval by Chair/Co-chair Construction Safety Committee:</b>		<b>Approval by Infection Control:</b>
<b>Date:</b>		<b>Date:</b>
		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

**Note: Complete daily log documenting work activity, preventive procedures and action taken if required**

# Risk Assessment and Exposure Control Checklist - Construction

Project: VA262-18-AP-10552 Date: 6/6/2018

Hazard	Concern? Y/N	Control Measure	Remarks
Asbestos	N		
Dust	Y	minimum	
Moisture/water; Leaks-Outages	N		
Vapors/fumes	N		
Noise	Y		
Vibration	N		
Air pressure relationships	N		
Traffic control	Y		
Open outside walls	N		
Impact to levels above and lateral	N		
Proximity of air intakes	N		
Pest control within construction area	N		
Proximity of immune suppressed patients	N		
Potential TB exposure to contractor? Work in occupied TB room or HVAC?	N		

## Approval Signatures:

Project Manager: Julio Bernabe

Infection Control:

Contractor: \_\_\_\_\_ Service/Section/Program Chief: \_\_\_\_\_

Safety and Occupational Health Professional: \_\_\_\_\_

Chair/Co-chair Construction Safety Committee: \_\_\_\_\_

6/6/18

**Individual(s) responsible for monitoring project risks:**

**Submit a copy of ICRA to Infection Control**

**Exposure Control Measures**

- Asbestos**
1. Contractor has hired an asbestos abatement contractor for control and cleanup.
  2. VA to hire independent IH to inspect and clear area for reoccupancy based on monitoring and/or professional judgment.
  3. Published asbestos protocol to be followed for work thru ceiling.
  4. Published asbestos protocol to be followed for work above ceilings.
  5. Perimeter barrier will be constructed in the interstitial space to isolate the construction area with other areas in the interstitial.
  6. Project area will be encased with spray applied hard surface encasement material.
  7. Provide mini containment under negative air in public areas.
  8. Sealed gypsum board barrier will be constructed to isolate the construction area from the public.
  9. Transit Panels will be removed which is considered Class B removal

- Dust**
1. **Airtight plastic (6ml) fire rated barrier that extend from floor to ceiling allow for no longer that 30 days-type of tape.**
  2. All barrier doors will be solid fire-rated wood in steel frame.
  3. Sealed gypsum board barrier will be constructed to isolate the construction area from the public.-to use in highest risk areas
  4. **Trash carts will be covered when transported thru the building.**
  5. Provide negative air machine exhausted to outside if not able to exhaust to outside HEPA filtered unit
  6. Provide mini containment under negative air in public areas.
  7. Provide negative air machine in space as air scrubber.
  8. Provide walk off mats at entrances to work area
  9. Perimeter barrier will be constructed in the interstitial space to isolate the construction area with other areas in the interstitial.
  10. **Clothing shall be free of loose soil and debris upon exiting the construction zone.**
  11. **Personnel entering sterile and invasive procedure areas will be provided with a disposable jump suit, head covering and shoe coverings that must be removed prior to exiting work area.**
  12. **Tools and equipment must be damp-wiped prior to entry and exit from sterile and invasive procedure areas.**

- Moisture Water Leaks**
1. Contain any water from core drilling activities.
  2. Dike any floor penetrations to minimize risk of leaks from construction zone.
  3. VA to hire independent IH to inspect and clear area for reoccupancy based on monitoring and/or professional judgment.

- Vapors/Fumes**
1. Use of products with low VOC's.
  2. Provide negative air in construction zone exhausted to outside away from intakes.
  3. Seal work area airtight barrier.
  4. Cut all metal outside the building.
  5. Seal any floor penetrations to minimize risk of fumes thru construction zone.
  6. Shut down air handler to minimize infiltration of fumes from outside.
- VA262-18-AP-10552

VA262-18-AP-10552

Potential TB exposure to Contractor

1. Relocate patient and close door for 1 hour for negative air to clear room before contractor may enter.
2. For areas determined high risk, contractor to ensure workers meet TB screening guidelines within 90 days prior to working in accordance with VHA Directive 2011-036.

Proximity of immune suppressed patients

1. Relocate patients away from construction zone for entire project.
2. Relocate patients away from construction zone during demolition operations.

Pest Control within Construction Area

1. Provide barriers to any open outside walls
2. Contact Pest Controller if any evidence of pests are found during the course of the work.

Proximity of Air Intakes

1. Shut down air handlers to reduce infiltration of fumes from exterior activities such as painting, gasoline powered engines, roofing operations, equipment, etc.

Impact to Levels Above and Below

1. Coordinate with occupants in surrounding areas to explain the work occurring.
  - a. Units below, above, lateral
2. Follow asbestos protocol when doing under floor work
3. Vacate areas when doing below floor work off of the catwalk.

Open Outside Walls

1. Construct temporary outside wall to limit the infiltration of wind, air, and temperature differences into the project site.

Traffic Control

1. **All egress pathways will be free of debris.**
2. Unauthorized personnel will not be allowed to enter the construction zone
3. Access construction area via exterior door.
4. Schedule delivery of large quantities of material and demolition haul out after hours.
5. Only designated elevators will be used for construction activities during scheduled times

Air Pressure Relationships

1. Provide negative air during asbestos abatement.
2. Provide negative air during construction
3. Seal off supply and exhaust HVAC registers.
4. Provide anti room under negative pressure at entrance to project zone.

Vibration

1. Schedule demolition work after normal work hours.
2. Coordinate with occupants in surrounding areas to explain the work occurring

Noise

1. Schedule demolition work after normal work hours.
2. Cut all metal outside the building.