

PROJECT  
TITLE:

## Infection Control Risk Assessment Matrix of Precautions for Construction and Renovation

### Step One:

Using the following table, *identify* the [Type of Construction Project Activity \(Type A – D\)](#)

Type A	<b>Inspection and Non-Invasive Activities.</b> Includes, but is not limited to: <ul style="list-style-type: none"><li>▶ Removal of ceiling tiles for visual inspection 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	<b>Small scale, short duration activities which create minimal dust.</b> Includes, but is not limited to: <ul style="list-style-type: none"><li>▶ Installation of telephone and computer cabling.</li><li>▶ Access to chase spaces.</li><li>▶ Cutting of walls or ceiling where dust migration can be controlled.</li></ul>
Type C	<b>Work that generates a moderate to high level of dust or requires demolition or removal of any fixed building components or assemblies.</b> Includes, but is not limited to: <ul style="list-style-type: none"><li>▶ Sanding of walls for painting or wall covering.</li><li>▶ Removal of floor coverings, ceiling tiles and case work.</li><li>▶ New wall construction.</li><li>▶ Minor duct work or electrical work above ceilings.</li><li>▶ Major cabling activity.</li><li>▶ Any activity which cannot be completed within a single work shift.</li></ul>
Type D	<b>Major demolition and construction projects.</b> Includes, but is not limited to: <ul style="list-style-type: none"><li>▶ Activities which require consecutive work shifts.</li><li>▶ Requires heavy demolition or removal of complete cabling system.</li><li>▶ New construction.</li></ul>

STEP 1:

## Step Two:

Using the following table, *identify* the [Patient Risk Group](#) that will be affected. If more than one risk group will be affected, select the higher risk group:

Low Risk	Medium Risk	High Risk	Highest Risk
<ul style="list-style-type: none"> <li>▶ Non-patient Areas</li> <li>▶ Outbuildings</li> <li>▶ Office areas, Meeting rooms</li> <li>▶ Environmental Services</li> <li>▶ Prosthetics</li> <li>▶ Canteen store</li> <li>▶ Computer server rooms</li> <li>▶ Chapel</li> <li>▶ Morgue</li> <li>▶ Elevator</li> <li>▶ Atrium</li> <li>▶ Warehouse</li> <li>▶ Police</li> <li>▶ Boiler plant/shops</li> </ul>	<ul style="list-style-type: none"> <li>▶ Cardio/Pulmonary</li> <li>▶ Physical Therapy &amp; Rehab Services</li> <li>▶ Primary/Ambulatory Care</li> <li>▶ Canteen Food Area</li> <li>▶ Eye Clinic</li> <li>▶ Audiology</li> <li>▶ Mental Health</li> </ul>	<ul style="list-style-type: none"> <li>▶ Emergency Department</li> <li>▶ Radiology/CT/MRI</li> <li>▶ Dental Clinic</li> <li>▶ Nuclear Medicine</li> <li>▶ Laboratory</li> <li>▶ ENT Clinic</li> <li>▶ Diabetes Clinic</li> <li>▶ Nutrition/Food Services</li> <li>▶ Specialty Clinic</li> <li>▶ CLC</li> <li>▶ Offices in OR</li> <li>▶ Laundry/Linen Area</li> <li>▶ Logistics storage</li> </ul>	<ul style="list-style-type: none"> <li>▶ Endoscopy</li> <li>▶ Pharmacy</li> <li>▶ OR</li> <li>▶ PACU</li> <li>▶ Sterile Processing</li> <li>▶ ICU</li> <li>▶ Chemo/Infusion Clinic</li> <li>▶ Med Surgery (3<sup>rd</sup> floor)</li> </ul>

STEP 2:

## Step Three:

Match the [Construction Project Type](#) (A, B, C, D) with the [Patient Risk Group](#) (Low, Medium, High, Highest) on the following matrix, to find the [Class of Precautions](#) (I, II, III, or IV) or level of infection control activities required.

[Class I – IV](#) or [Color Coded Precautions](#) are delineated on the following page.

IC Matrix – Class of Precautions: Construction Project by Patient Risk

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

**Note:** Infection Control approval will be required when the Construction Activity and Risk Level indicate that **Class III** or **Class IV** control procedures are necessary.

STEP 3:

## Required Infection Control Precautions by Class

	<b>During Construction Project</b>	<b>Upon Completion of Project</b>
<b>C L A S S I</b>	<ol style="list-style-type: none"> <li>1. Execute work by methods to minimize raising dust from construction operations.</li> <li>2. Immediately replace a ceiling tile displaced for visual inspection.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean work area upon completion of task(s).</li> </ol>
<b>C L A S S II</b>	<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. Block off and seal air vents.</li> <li>5. Place dust mat at entrance and exit of work area.</li> <li>6. Remove or isolate HVAC system in areas where work is being performed.</li> <li>7. Contain construction waste before transport in tightly covered containers.</li> </ol>	<ol style="list-style-type: none"> <li>1. Wipe work surfaces with cleaner/disinfectant.</li> <li>2. Wet mop and/or vacuum with HEPA filtered vacuum before leaving work area.</li> <li>3. Upon completion, restore HVAC system where work was performed.</li> </ol>
<b>C L A S S III</b>	<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. Contain construction waste before transport in tightly covered containers.</li> <li>5. Cover transport receptacles or carts. Tape covering unless solid lid.</li> <li>6. Obtain Infection Control Construction Permit before construction begins. Post permit at the entrance to the work site.</li> </ol>	<ol style="list-style-type: none"> <li>1. Do not remove barriers from work area until completed project is inspected by the owner's Safety Department and Infection Control Department and thoroughly cleaned by the owner's Environmental Services Department.</li> <li>2. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction.</li> <li>3. Vacuum work area with HEPA filtered vacuums.</li> <li>4. Wet mop with disinfectant.</li> <li>5. Upon completion, restore HVAC system where work was performed.</li> </ol>
<b>C L A S S IV</b>	<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. Seal holes, pipes, conduits, and punctures appropriately.</li> <li>5. Contain construction waste before transport in tightly covered containers.</li> <li>6. Cover transport receptacles or carts. Tape covering unless solid lid.</li> <li>7. 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.</li> <li>8. 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> <li>9. Obtain Infection Control Construction Permit before construction begins. Post permit at the entrance to the work site.</li> </ol>	<ol style="list-style-type: none"> <li>1. Do not remove barriers from work area until completed project is inspected by the owner's Safety Department and Infection Control Department and thoroughly cleaned by the owner's Environmental Services Department.</li> <li>2. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction.</li> <li>3. Vacuum work area with HEPA filtered vacuums.</li> <li>4. Wet mop with cleaner/disinfectant.</li> <li>5. Remove isolation of HVAC system in areas where work was performed.</li> <li>6. Do not remove barriers from work area until completed project is inspected by the owner's Safety Department and Infection Control Department and thoroughly cleaned by owner's Environmental Services Department.</li> </ol>

STEP 4: Identify the area surrounding the project area, assessing potential impact.

Unit Below  
Risk Group

Unit Above  
Risk Group

Unit Lateral  
Risk Group

Unit Lateral  
Risk Group

Unit Behind  
Risk Group

Unit Front  
Risk Group

STEP 5: Identify specific site of activity (eg. patient room, medication room, etc.)

STEP 6: Identify issues related to: ventilation, plumbing, electrical in terms of occurrence of probable outages.

STEP 7: Identify containment measures, using prior assessment. What type of barriers? (eg. solid wall barrier); Will HEPA filtration be required? (Note: Renovation/construction areas shall be isolated from the occupied areas during construction and shall be negative with respect to surrounding areas)

STEP 8: Consider potential risk of water damage. Is there a risk due to compromising structural integrity? (eg. wall, ceiling, roof) N/A

STEP 9: Work hours: Can or will the work be done during non-patient care hours?

STEP 10: Do plans allow for adequate number of isolation/negative airflow rooms?

STEP 11: Do the plans allow for the required number and type of hand washing sinks?

STEP 12: Does the infection control staff agree with the minimum number of sinks for this project? (verify against AIA guidelines for types and areas)

STEP 13: Does the infection control staff agree with the plans relative to clean and soiled utility rooms?

STEP 14: Plan to discuss the following containment issues with the project team. (eg. traffic flow, housekeeping, debris removal (how and when))

STEP 15: CVAMC is classified as “Low Risk” for Tuberculosis. Does this project involve risk of airborne exposure to known or suspected TB case?

**NO** Contractors will not be required to work in internal environments involving risk of airborne exposure to known or suspect TB cases. Baseline TB skin testing is not required for contractors. (Any roof work must be preceded by COR and IC verification of proximity to exhaust from room currently occupied by known or suspect TB cases)

**YES** In compliance with VHA Directive 2011-036, the Contractor must provide written certification that all contract employees assigned to the worksite have had a pre-placement tuberculin screening within 90 days prior to assignment to the worksite and been found to have a negative TB screening reactions. Contractors will be required to show documentation of negative TB screening reactions for any additional workers who are added after the 90 day requirement before they will be allowed to work on the work site. Contract employees manifesting positive screening reactions to tuberculin must be examined according to current CDC guidelines prior to working on VHA property.