



**Infection Control Risk Assessment
Matrix of Precautions for Construction & Renovation**

STEP ONE: In the following table, identify the Type (A-D) of Construction Project Activity.

Type	Construction Project Activity
Type A	<p>Inspection and Non-Invasive Activities. Include, but are not limited to:</p> <ul style="list-style-type: none"> ▪ Removal of ceiling tiles for visual inspection limited to 1 tile per 50 square feet. ▪ Painting (but not sanding). ▪ Wall covering, electrical trim work, minor plumbing, and activities that do not generate dust or require cutting of walls or access to ceilings other than for visual inspection.
Type B	<p>Small scale, short duration activities that create minimal dust. Include, but are not limited to:</p> <ul style="list-style-type: none"> ▪ Installation of telephone and computer cabling. ▪ Access to chase spaces. ▪ Cutting of walls or ceiling where dust migration can be controlled.
Type C	<p>Work that generates a moderate to high level of dust or requires demolition or removal of any fixed building components or assemblies. Includes, but is not limited to:</p> <ul style="list-style-type: none"> ▪ Sanding of walls for painting or wall covering. ▪ Removal of floor coverings, ceiling tiles, and casework. ▪ New wall construction. ▪ Minor duct work or electrical work above ceilings. ▪ Major cabling activities. ▪ Any activity that cannot be completed within a single work shift.
Type D	<p>Major demolition and construction projects. Includes, but is not limited to:</p> <ul style="list-style-type: none"> ▪ Activities that require consecutive work shifts. ▪ Requires heavy demolition or removal of a complete cabling system. ▪ New construction.



STEP TWO: In the following table, identify the Patient Risk Groups 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"> ▪ Office areas 	<ul style="list-style-type: none"> ▪ Cardiology ▪ Echocardiography ▪ Endoscopy ▪ Nuclear Medicine ▪ Physical Therapy ▪ Radiology/MRI ▪ Respiratory Therapy ▪ Outpatient Clinics 	<ul style="list-style-type: none"> ▪ Emergency Room ▪ Labor & Delivery ▪ Clinical Laboratories ▪ Pediatrics ▪ Pharmacy ▪ Post Anesthesia Care Unit ▪ Surgical Units 	<ul style="list-style-type: none"> ▪ Any area caring for immuno-compromised patients ▪ Burn Unit ▪ Cardiac Cath Lab ▪ Supply, Processing, and Distribution ▪ All inpatient medical or surgical units ▪ Medical Unit ▪ Negative pressure isolation rooms ▪ Outpatient chemotherapy areas ▪ Operating Rooms

STEP THREE: Match the...

Patient Risk Group (Low, Medium, High, Highest) with the planned **Construction Project Type** (A, B, C, D) 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 table.)

**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 (green)	II (yellow)	II (yellow)	III/IV (pink)
MEDIUM Risk Group	I (green)	II (yellow)	III (pink)	IV (red)
HIGH Risk Group	I (green)	II (yellow)	III/IV (pink)	IV (red)
HIGHEST Risk Group	II (yellow)	III/IV (pink)	III/IV (pink)	IV (red)

Note: Infection Control approval is required for all construction or renovation activities.

CLASS OF PRECAUTIONS: _____



Description of Required Infection Control Precautions by Class

CLASS	During Construction Project	Upon Completion of the Project
CLASS I	<ol style="list-style-type: none"> 1. Execute work by methods to minimize dust dispersal from minor flooring or surface disruptions. 2. Immediately replace a ceiling tile displaced for visual inspection. 	<p>Clean up any dust that may have been generated with HEPA filtered vacuum or damp mop.</p>
CLASS II	<ol style="list-style-type: none"> 1. Provide active means to prevent airborne dust from dispersing into atmosphere with use of control cubes or other dust barriers. 2. Remove or isolate HVAC system in areas where work is being performed. 3. Water mist work surfaces to control dust while cutting. 4. Seal unused doors with duct tape. 5. Block off and seal air vents. 6. Place tacky mat at entrance and exit of work area and change frequently or when ineffective. 	<ol style="list-style-type: none"> 1. Wet mop and/or vacuum with HEPA-filtered vacuum before leaving work area and wipe work surfaces with disinfectant. 2. Contain construction waste before transport in tightly covered containers. Tape may be used to ensure a tight cover. 3. Remove isolation of HVAC system in areas when work has been completed.
CLASS III	<p><i>As above and:</i></p> <ol style="list-style-type: none"> 1. Complete all critical barriers, i.e., sheetrock, plywood, plastic, to seal area from non-work area or implement control cube method before construction begins. 2. Maintain negative air pressure (NPV) within the work site utilizing HEPA-equipped air filtration units. 3. NPV monitoring devices should be visible from outside the worksite and readings should be documented daily or more often as needed. 4. Contain construction waste before transport in tightly covered containers. Tape covering unless solid lid. 	<p><i>As above and:</i></p> <ol style="list-style-type: none"> 1. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. 2. Do not remove barriers from work area until completed project is thoroughly cleaned by Environmental Management Services Department and inspected by FMS, Safety and Infection Control.



CLASS IV	During Construction Project	Upon Completion of the Project
	<p><i>As above and:</i></p> <ol style="list-style-type: none"> 1. Seal holes, pipes, conduits, and punctures appropriately. 2. 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. 3. All personnel entering work site are required to wear shoe covers. Shoe covers must be changed each time the worker exits the work area. 	<p><i>As above</i></p>

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

<i>Unit Below:</i>	<i>Unit Above:</i>	<i>Lateral:</i>	<i>Lateral:</i>	<i>Behind:</i>	<i>Front:</i>
<i>Risk Group:</i>					

STEP 5: Identify specific site of activity, e.g., patient rooms, medication room, etc.

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

STEP 7: Identify containment measures using prior assessment. What types of barriers (e.g. solid wall barriers)? Will HEPA filtration be required?

Note: Renovation/construction area 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 (e.g., wall, ceiling, roof)?

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 the American Institute of Architects Guidelines for types and area.)

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: traffic flow, housekeeping, and debris removal (how and when).

Risk for Tuberculosis (TB): HIGH LOW

If HIGH risk, was TB test documentation received from contractor?

YES NO NA

Comments:

Water shut down > month? New Water system installed? (Must be cleaned and disinfected before use)

The ICRA may be modified throughout the project. Revisions must be communicated to the Project Manager.



Infection Control Construction Permit

Project Title and Project #:					Permit No:	
Location of Construction:				Project Start Date:		
Project Coordinator:				Estimated Duration:		
Contractor Performing Work:				Permit Expiration Date:		
Supervisor:				Telephone:		
YES	NO	CONSTRUCTION ACTIVITY	YES	NO	INFECTION CONTROL RISK GROUP	
		TYPE A: Inspection, non-invasive activity			GROUP 1: Low Risk	
		TYPE B: Small scale, short duration, moderate to high levels			GROUP 2: Medium Risk	
		TYPE C: Activity generates moderate to high levels of dust, requires greater 1 work shift for completion			GROUP 3: Medium/High Risk	
		TYPE D: Major duration and construction activities Requiring consecutive work shifts			GROUP 4: Highest Risk	
CLASS I		<ol style="list-style-type: none"> 1. Execute work by methods to minimize raising dust from construction operations. 2. Immediately replace any ceiling tile displaced for visual inspection. 3. Minor Demolition for Remodeling. 				
CLASS II		<ol style="list-style-type: none"> 1. Provides 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 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. 9. Remove or isolate HVAC system in areas where work is being performed. 				
CLASS III		<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 or implement control cube method before construction begins. 4. Vacuum work with HEPA filtered vacuums. 5. Wet mop with disinfectant. 6. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. 7. Contain construction waste before transport in. 8. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units. 9. Do not remove barriers from work area until complete project is thoroughly cleaned by the Environmental Care, FMS. 10. Contain construction waste before transport in tightly covered containers. 11. Cover transport receptacles or carts. Tape covering unless solid lid. 12. Remove or isolate HVAC system in areas where work is being performed. 				
CLASS IV		<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. Require all personnel to pass through this room to 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. 7. All personnel entering work site are required to wear shoe covers. 8. Do not remove barriers from work area until completed project is thoroughly cleaned by the Environmental Care, FMS. 9. Vacuum work area with HEPA filtered vacuums. 10. Wet mop with disinfectant. 11. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. 12. Contain construction waste before transport in tightly covered containers. 13. Cover transport receptacles or carts. Tape covering unless solid lid. 14. Remove or isolate HVAC system in areas where is being done. 				
Additional Requirements:						
Permit Request By:				Permit Authorized By:		
Signature and Date:				Signature and Date:		