VA Hospital
Hines, IL 60141

Policy Memorandum 578-12-138A-079 (R-2)
December 11, 2014

ABOVE CEILING ENTRY AND WALL CONSTRUCTION PERMITS

Changes:

- NONE
- Supervisory Management has reviewed this Policy and found it to be current to date.

Related forms: Located: R/forms/policy forms/FMS

- Attachment A: Above Ceiling Entry/Wall Penetration Permit
- Attachment B: Infection Control Risk Assessment for Construction/Renovation Projects
- Attachment C: FMS/ SOP

Key words: life safety, infection control, construction

ABOVE CEILING ENTRY AND WALL CONSTRUCTION PERMITS

1. **PURPOSE:** To establish policy and procedures regarding above ceiling entry and wall construction for the purpose of maintaining appropriate infection control guidelines in accordance with Joint Commission requirements for both infection control and maintenance of "above ceiling" fire or smoke barriers with regard to maintenance and construction activities.

2. **POLICY:**

a. Facilities Management Service (FMS) staff will follow the established standards and operating procedure (SOP) for maintaining proper fire and smoke barrier control when working in construction areas.

b. For non-FMS facility work performed above the ceiling, the contractor or service will need to obtain the appropriate permit prior to all "above ceiling" entry, as well as wall and door repair and construction activity, which may present infection control or life safety hazards in direct patient care areas and throughout the Hospital complex.

c. FMS will issue such permits which will include:

(1) Identification of the type of activity,

(2) Risk assessment for contamination of the involved areas,

(3) Precautions for the prevention of such contamination in both critical and non-critical patient care areas.

Depending on the risk score, appropriate mobile containment systems will be required and utilized by employees and contractors prior to any vertical or horizontal ceiling and wall entries that have been identified as potential infection control hazards.

3. **DEFINITIONS:**

a. Above ceiling entries are vertical entries into existing ceiling spaces which involve the removal and/or replacement of existing ceiling tiles.

b. Wall entries are horizontal entry into existing walls and include cutting into existing walls as well as repairs and construction of door frames and door frame openings.

c. Mobile containment systems are portable enclosures which are designed to seal off the point of entry and include the capability to place such containments under filtered negative air conditions.

d. Infection control hazards are foreign contaminants such as dust, fibers, dirt, and debris generated during the performance of maintenance and/or construction activity within one hundred (100) feet of direct patient care areas. Identified bio-hazards may also be included as infection control hazards.

4. **RESPONSIBILITY:**

a. Facilities Management Service will:

(1) Adhere to the FMS SOP (Attachment C) when working above the ceiling and entering a wall;

(2) Ensure that Above Ceiling Entry/Wall Construction permits are issued to contractors and non-FMS services;

(3) Ensure that final inspections are conducted;

(4) Ensure that any deficiencies found remaining will be discussed with the Contracting Officer's Representatives (COR) involved with the work; and

(5) Maintaining documentation of permits and infection control risk assessments in the Project Planning Section.

(6) Will provide training to all services directly impacted by this policy

b. Service Chiefs/Service Line Managers are responsible for ensuring that:

(1) All non-FMS Hines staff and contractors who are making "above ceiling" entries and/or wall penetration construction will secure Above Ceiling/Wall Construction permits, as required, **prior** to the beginning of the work;

(2) All points of entry have been properly secured and cleaned in accordance with infection control guidelines; and

(3) All FMS shop staff will comply with the FMS Standards and Operating Procedures (SOP) pertaining to executing work in areas above the ceiling; including completion of the Infection Control Risk Assessment prior to the start of an assigned Work Order to determine the proper application of the Mobile Containment System.

c. Contractors are responsible for ensuring that appropriate mobile containment systems are utilized for above ceiling entry as well as wall construction in critical and non-critical patient care areas.

d. CORs are responsible for ensuring that all contractors adhere to this policy during performance of any work which involves above ceiling entry or wall penetration construction.

e. Staff Supervisors are responsible for ensuring that staff technicians, engineering journeymen, and service contractors under their direction adhere to this policy during performance of any work which involves "above ceiling" entry or wall penetration construction.

5. **ACTIONS:** In cases of above ceiling entry and/or wall penetration construction in either critical and non-critical direct patient care areas by non-FMS staff or a contractor, the following steps are required.

a. Prior to any above ceiling entry and/or wall penetration by both staff personnel and contractors, all said work is to be approved by the FMS/Project Planning Section. The appropriate Supervisor and/or the identified COR will ensure that a risk assessment is conducted and proper permits are issued.

b. For non-FMS facility work, an "**Above Ceiling Entry/Wall Penetration"** permit (see Attachment A) must be obtained from FMS/Project Planning Section prior to the start of the work. All permits shall be available for inspection at the work site.

c. An "**Infection Control Risk Assessment"** (see Attachment B) will be conducted prior to the start of the work for the purpose of identifying any potential hazards to the environment of care which may be caused during the performance of the work.

d. Upon completion of the work, all points of ceiling entry and/or wall penetration will be secured and cleaned in accordance with established Hospital infection control guidelines. Including UL system compliant firestopping materials, code compliant application, labeling, and certifications.

(1) Mixing different manufacturer's products in the same penetration is not acceptable. Filler foam is not an acceptable product.

(2) Effective seal to stop smoke and toxic gases in the case of a fire

e. Upon completion of the work, a visual inspection for approval must be requested from the COR involved with the work. This inspection will be conducted for the purpose of ensuring compliance with this policy and verification that all penetrations have been sealed.

f. All above ceiling entry and wall penetration/construction work will be performed in accordance with Hospital Policies 578-02-001-086 (R-3) Fire Safety, 578-02-001-088 (R-2) Interim Life Safety Measures, 578-03-001-045 (R-2) Safety, Occupational Health, and Environment of Care Program, 578-03-001-046 (R-1) Asbestos Management Program, 578-03-001-089 (R-2) Cutting, Welding, and Other Hot Work, 578-11-138A-062 Integrity of Building Smoke and Fire Compartments, 578-12-138A-076 (R1) Safety and Health During Construction Activities, and 578-12-138S-047 (R-1) Confined Space Program.

g. The completed permit and infection control risk assessment will be signed by the individuals who performed the work and the COR and submitted as the official document of record. The signed forms will be submitted for filing with the FMS Project Planning Section.

6. **RESPONSIBILITY**: The Service (FMS) will supply training to all services directly impacted by this policy.

7. **REFERENCE:**

a. Joint Commission Life Safety Standard **LS.02.01.10.** Accessible on SharePoint/Joint Commission RFIs, 2010.

b. Joint Commission Infection Control Standard IC.1.10, IC.2.10 and IC.3.10. Accessible on SharePoint / Joint Commission Hospital Standards 2010.

c. Hospital Policy 578-02-001-086 (R-3) Fire Safety.

d. Hospital Policy 578-02-001-088 (R-2) Interim Life Safety Measures.

e. Hospital Policy 578-03-001-045 (R-2) Safety, Occupational Health, and Environment of Care Program.

f. Hospital Policy 578-03-001-046 (R-1) Asbestos Management Program.

g. Hospital Policy 578-03-001-089 (R-2) Cutting, Welding, and Other Hot Work.

h. Hospital Policy 578-11-138A-062 Integrity of Building Smoke and Fire Compartments.

i. Hospital Policy 578-12-138A-076 (R1) Safety and Health During Construction Activities.

j. Hospital Policy 578-12-138S-047 (R-1) Confined Space Program.

8. **RESCISSION:** Policy Memorandum 578-07-001-102 (R-2) Above Ceiling Entry and Wall Construction Permits, dated August 29, 2011. (Note: Number changed by P. Blanton 6/12)

9. **RECERTIFICATION:** This Policy Memorandum will be recertified on or before December 11, 2017.

10. **FOLLOW-UP RESPONSIBILITY:** Chief, Facility Management Service (138).

/s/
Daniel Zomchek, Ph.D., FACHE
Acting Hospital Director

Distribution: Hines Intranet Website and Service Chiefs/Service Line Managers via e-mail

Attachment A: Above Ceiling Entry/Wall Penetration Permit
Attachment B: Infection Control Risk Assessment for Construction/Renovation Projects
Attachment C: Memorandum: Standards of Operating Procedures (SOP) – Above Ceiling Entry and Wall Construction Permits

Permit # _____

Edward Hines Jr. VA Medical Center

Above Ceiling Entry/Wall Penetration Permit

Work location: _____

Description of work: _____

Work start date: _____ Completion date: _____

Will penetrations in the existing structure be made?

Yes ____ No ____ Smoke ____ Fire ____

Responsible party for sealing the penetrations:

_____

Type of sealant used: _____ Drawing Ref:_____

UL approved for use? Yes ____ No ____

Permit Requestor (COR): _____ _____
Print name Sign and Date

Company/Dept.:_____ Telephone No.: _____

Permit Approval, FMS: _____ _____
Print name Sign and Date

Inspection Approval

COR: _____ _____
Print name Sign and Date

Permitting Authority, FMS: _____ _____
Print name Sign and Date

*Firewall Penetrations: Routing of wiring, piping or conduit may require drilling through smoke or fire walls above the ceiling. When this occurs, all wires or conduits that penetrate the rated assembly must be marked with identification per applicable code. All penetrations must be resealed with sealant prior to final inspection by a Plant Operations supervisor.

*Final Approval: When the work has been completed and all smoke and fire penetrations have been properly resealed, an inspection of the work area will be performed and the permit will be signed by the responsible COR and FMS personnel, indicating final approval. Final approval of the Above-the-Ceiling Work Permit is required before payment can be authorized.

Infection Control Risk Assessment for Construction / Renovation Projects	
Project Name:	Project Number: 578-
Project Planner:	Extension:
Building Number:	Floor(s):
Project Start Date:	Projected completion date: / /

Construction Activity		Infection control risk group	
	TYPE A: Inspection, non-invasive activity, low noise, no vibration DUST LEVEL Low		GROUP 1: Low office areas, FMS areas, all non-patient care areas
	TYPE B: Small scale, short duration, low-moderate noise, low- moderate vibration DUST LEVEL Moderate to High		GROUP 2: Medium All other patient care areas, ultrasound, rehab, occupational therapy
	TYPE C: Requires more than one work shift to Complete, low-moderate noise, moderate/high vibration DUST LEVEL High		GROUP 3: Medium/High emergency department, radiology/MRI, laboratories, admissions, food service areas, pharmacy
	TYPE D: Major demolition and construction activities requiring consecutive work shifts, moderate-high noise, moderate-high vibration DUST LEVEL High		GROUP 4: Highest operating rooms, SPD ICU's, CCU, outpatient areas, oncology anesthesia, post anesthetic recovery, all scope areas, pharmacy, renal dialysis

Project Class Determination Matrix

Construction Activity → / Risk Level ↓	Type "A"	Type "B"	Type "C"	Type "D"
Group 1	**I**	**II**	**II**	**III**
Group 2	**I**	**II**	**III**	**IV**
Group 3	**I**	**III**	**III**	**IV**
Group 4	**III**	**IV**	**IV**	**IV**

Contractors Actions by Project Class

Class I	1. Execute work by methods to minimize raising dust from construction operations. 2. Immediately replace any ceiling tile displaced for visual inspection.	3. Contain construction waste before transport in tightly covered containers. 4. Emergency Preparedness training/posting/ID card.
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 transport in tightly covered containers. 7. Emergency Preparedness training/posting/ID card.
Class III	1. Isolate HVAC system in area where work is being done to prevent contamination of the duct system. 2. Complete all critical barriers before any work begins. 3. Maintain negative air pressure within work area utilizing HEPA equipped air filtration units. 4. Provide dust mat at entrance and exit of work area.	5. Contain construction waste before transport in tightly covered containers. 6. Wet mop or vacuum with HEPA filtered vacuum before leaving work area. 7. Cover transport receptacles or carts. Tape covering. 8. Emergency Preparedness training/posting/ID card.
Class IV	1. Isolate HVAC system in area where work is being done to prevent contamination of the duct system. 2. Complete all critical barriers before any work begins. 3. Maintain negative air pressure within work area utilizing HEPA equipped air filtration units. 4. Provide dust mat at entrance and exit of work area; in the anteroom at entrance and exit of work area. 5. Seal holes, pipes, conduits and punctures appropriately. 6. Vacuum the entire work area with HEPA vacuums or wet mop with disinfectant at the completion of project.	8. Remove barrier materials carefully to minimize spreading Dust and debris associated with construction. 9. Contain construction waste before transport in tightly covered containers. 10. Cover transport receptacles or carts. Tape covering. 11. Remove isolation of HVAC system in areas where work was performed at the end of the project. 12. Emergency Preparedness training/posting/ID card.

Projects Classification _____ Date _____
Project Planners signature _____
Contractor's signature _____
Onsite construction Supervisor signature _____

FAX TO INFECTION CONTROL AT 22481 AND SAFETY AT 25613

Infection Control Risk Assessment
Matrix of Precautions for Construction & Renovation

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

TYPE A	**Inspection and Non-Invasive Activities.** Includes, but is not limited to: • 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 which do not generate dust or require cutting of walls or access to ceilings other than for visual inspection.
TYPE B	**Small scale, short duration activities which create minimal dust.** Includes, but is not limited to: • installation of telephone and computer cabling. • access to chase spaces • cutting of walls or ceiling where dust migration can be controlled.
TYPE C	**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: • 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 which cannot be completed within a single work shift.
TYPE D	**Major demolition and construction projects.** Includes, but is not limited to: • activities which require consecutive work shifts • requires heavy demolition or removal of a complete cabling system • new construction.

STEP 1: _____

Step Two:
Using the following table, ***identify*** **the <u>Patient Risk</u> 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
• Office areas	• Cardiology • Echocardiography • Endoscopy • Nuclear Medicine • Physical Therapy • Radiology/MRI • Respiratory Therapy	• Emergency Room • Laboratories (specimen) • Medical Unit • Outpatient Surgery • Pharmacy • Post Anesthesia Care Unit	• Any area caring for immunocompromised patients • Burn Unit • Cardiac Cath Lab • CCU • Central Sterile Supply • Intensive Care Units • Negative pressure isolation rooms • Oncology • Surgical units

Step 2 _____

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 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**
MEDIUM Risk Group	**I**	**II**	**III**	**IV**
HIGH Risk Group	**I**	**III**	**III**	**IV**
HIGHEST Risk Group	**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 _____

Description of Required Infection Control Precautions by Class

	During Construction Project	Upon Completion of Project
Class I	1. Execute work by methods to minimize raising dust from construction operations. 2. Immediately replace a ceiling tile displaced for visual inspection.	
Class II	1. Provide active means to prevent airborne 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. Place dust mat at entrance and exit of work area. 6. remove or isolate HVAC system in areas where work is being performed.	1. Wipe work surfaces with disinfectant. 2. Contain construction waste before transport in tightly covered containers. 3. Wet mop and/or vacuum with HEPA-filtered vacuum before leaving work area. 4. Remove isolation of HVAC system in areas where work is being performed.
Class III	1. Remove or isolate HVAC system in area where work is being done to prevent contamination of dust system. 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 3. Maintain negative air pressure within work site utilizing HEPA-equipped air filtration units. 4. Contain construction waste before transport in tightly covered containers. 5. Cover transport receptacles or carts. Tape covering unless solid lid.	1. Do not remove barriers from work area until project is inspected by the owner's Safety Department and Infection Control Department and thoroughly cleaned by the owner's Environmental Services Department. 2. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. 3. Vacuum work area with HEPA-filtered vacuums. 4. Wet mot area with disinfectant. 5. Remove isolation of HVAC system in areas where work is being performed.
Class IV	1. Isolate HVAC system in area where work is being done to Prevent contamination of duct system. 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. 3. Maintain negative air pressure within work site utilizing HEPA-equipped air filtration units. 4. Seal hole, pipes, conduits, and punctures appropriately 5. 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. 6. All personnel entering work site are required to wear shoe covers. Shoe covers must be changed each time the worker exists the work area. 7. 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.	1. Remove barrier material carefully to minimize spreading of dirt and debris associated with construction. 2. Contain construction waste before transport in tightly covered containers. 3. Cover transport receptacles or carts. Tape covering unless solid lid. 4. Vacuum work area with HEPA-filtered vacuums. 5. Wet mop area with disinfectant. 6. Remove isolation of HVAC system in areas where work is being performed.

Step 4. **Identify the areas surrounding the project area, assessing potential impact**

Unit Below	Unit Above	Lateral	Lateral	Behind	Front
Risk Group	Risk Group	Risk Group	Risk Group	Risk Group	Risk Group

Step 5. **Identify specific site of activity eg, patient rooms, medication room, etc.**

_____

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

_____

Step 7. **Identify containment measures, using prior assessment. What types of barriers? (Eg, 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? (eg, wall, ceiling, roof)**

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

Sep 10. **Do plans allow for adequate number of isolation/negative airflow rooms?**

Step 11. **Do the plans allow for the required number & type of handwashing sinks?**

Step 12. **Does the infection control staff agree with the minimum number of sinks for this project?**
(*Verify with AIA 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.**
Eg, traffic flow, housekeeping, debris removal (how and when)

_____

_____

Appendix: Identify and communicate the responsibility for project monitoring that includes infection control concerns and risks. The ICRA may be modified throughout the project. Revisions must be communicated to the Project Manager.

Department of Veterans Affairs

MEMORANDUM

Date: June 19, 2014

From: Assistant Chief, Facilities Management Service (138)

Subj: Standards of Operating Procedures (SOP) – Above Ceiling Entry and Wall Construction Permits

To: All FMS, IRM, and VA Contractor Personnel

1. Effective immediately, the following procedure shall be observed by all employees, contractors, and service personnel requiring above ceiling and wall access for repairs or construction and maintenance work.

a. Prior to the commencement of any above ceiling or wall entry work, all non-FMS personnel shall obtain an Above Ceiling & Wall Construction Permit from the Project Planning Section, Facility Management Service (FMS), Bldg #2, Room 119. The permit requestor is responsible for completing the Infection Control Construction Permit/Risk Assessment Matrix. A copy is to be submitted to the Project Planning Section, FMS prior to the issuance of the Above Ceiling & Wall Construction Permit. For all FMS sections, an Infection Control Construction Permit/Risk Assessment Matrix shall be completed prior to the execution of a work order. In addition, the Above Ceiling & Wall Construction Permit will include reference to the corresponding Red, Amber, or Green color coded set of drawings for the work location.

b. The completed permit and matrix will be reviewed by the appropriate Contracting Officer's Representative (COR) involved with the work to ensure compliance with the Above Ceiling Entry/Wall Construction Permit policy. The Infection Control Construction Permit/Risk Assessment Matrix will be part of the Safety Briefing, as given by the COR; these documents are subject to inspection by Project Planning, FMS Chief of Maintenance and Operations, and Safety Office.

c. The COR shall ensure that all precautions identified in the risk assessment are enforced and that all doors capable of isolating the work area are secured. Additionally, the COR will ensure that the Mobile Containment Systems are utilized in areas that require specific containment Systems in accordance with the manufacturer's instructions for the use of such equipment.

d. All persons performing above ceiling and/or wall construction work will ensure that all penetrations made during the performance of such work are sealed with an appropriate, UL compliant fire stopping material in accordance with established NFPA standards.

e. The COR will ensure that the work area is cleaned and that no debris is present in the work area nor the Mobile Containment System.

f. Upon completion of the work, the persons performing the work will contact the COR for a final inspection. The COR will contact the permit approver from FMS to attend the inspection. Upon verification that all aspects of the Above Ceiling Entry/Wall Construction Permit policy has been adhered to, the COR and the permit issuer will both sign off on the Above Ceiling Entry/Wall Construction Permit.

g. The completed forms will be reviewed and filed by the Project Planning Section, FMS.

2. Strict compliance with established policies and procedures regarding Above Ceiling Entry/Wall Construction Permits and Risk Assessment is essential for the maintenance of a fire safe environment of care, as well as the prevention of infectious contamination. Accordingly, failure to comply with the established policies and procedures will result in significant corrective action.

3. Questions concerning this matter should be referred to D'Lorah Small, Project Planning Chief, FMS, Extension 22224.

Ramiro Montes De Oca, P.E.
Assistant Chief, FMS