

Construction and Renovation Preconstruction Risk Assessment (PCRA), Infection Control Risk Assessment (ICRA), and Interim Life Safety Measures (ILSM) Procedures

1. **Purpose:** To describe procedures for identification and protection of patients, control of exposure and prevention of the spread of infection during construction, demolition, renovation, and repair projects at this VA Ambulatory Care Center.
2. **Policy:** It is the policy of the VA facility to proactively reduce the potential for exposure to infection during construction, renovation, demolition, or repair, using current technology to protect patients, visitors, and staff. The appropriate staff is involved in all stages including planning, design, procurement of construction, and construction phases.
3. **Definitions:** Construction and remodeling are defined as activities that disturb the environment where settled dust or dirt is found and which may cause spores to become airborne. This includes: demolition of existing ceilings or walls; exposure of ceiling spaces by removal of all or part of ceiling; breaching of walls, ceilings, or floors; removal of uncovered debris from construction areas; and major disturbance of soil in which dust or dirt becomes airborne.
4. **Procedures:**
 - a. Introduction
 - i. Engineering provides project management services for renovation and construction projects.
 - ii. Project Engineer work in conjunction with services, architectural / engineering firms and contractors to guide a project from initial planning through occupancy of the space. The project team also includes Administration, Information Systems, Engineering, Environmental Services, Infection Control, Occupational Safety and Health and GEMS and Safety. Other departments are included as appropriate.
 - iii. All renovation or new construction must meet criteria outlined by The Joint Commission (TJC) and the authorities having jurisdiction. The 2010 Edition of the Guidelines for Design and Construction of Health Care Facilities and The Joint Commission Standards and Elements of Performance are used as a basis for design for clinical programs falling under the purview of TJC and VA.

- iv. Responsibility for ensuring that renovation and construction projects meet the aforementioned requirements lies with the project engineers, design professionals, contractors, infection control preventionist, safety officer and administrators. The project engineer will take the lead in including the appropriate stakeholders throughout the process.

b. Forms and Uses

- i. CVAACC has an PCRA- ICRA- ILSM Multidisciplinary Construction Safety Inspection Team that reviews construction projects. The team is responsible for completing the PCRA- ICRA-ILSM process.
- ii. The Construction Safety Inspection team utilizes the following forms:
 - 1) PCRA-ICRA. The PCRA-ICRA form is completed during the construction documentation phase. The Project Engineer completes the top portion of the form and checks the appropriate boxes and elaborates on items as needed. The Infection Control part of the form serves two functions: a) determines the Infection Control Risk Level, and b) serves as a “permit” for construction. The form is reviewed and signed by the Multidisciplinary Construction Inspection team as designated by the Construction Safety Policy. The original form is maintained as part of the Construction Safety Committee file. The form may need to be reviewed and changed for projects with multiple design phases and changes. Project Engineer Prior to construction, the Project Engineer convenes a preconstruction meeting that includes the design team, contractor, Engineering, infection control preventionist, and safety officer. The Project Engineer brings the original PCRA-ICRA form to the meeting. The ICRA level and precautions are reviewed with the contractor, who signs off on the form. A copy of the form is maintained on the construction site; the original is returned to the Safety file.
 - 2) ILSM. The Interim Life Safety Measures (ILSM) Assessment Form is completed during the construction documentation phase. It identifies deficiencies in building systems or safety risks that will be present during the construction period. The project engineer completes the top section of the form and completes the pre-assessment by indicating (yes or no) whether conditions of a deficiency or impairment exist. The safety officer then confirms whether the deficiencies or impairments are significant, and if so, checks the appropriate measures. If, in the professional opinion of the Safety Officer, any identified deficiencies or impairments are deemed to be significant, ILSM’s will be identified by checking the appropriate cell(s) on the grid in the assessment portion of the ILSM Assessment Form. The ILSM Assessment Form indicates when and to what extent measures are typically required. However, mitigating

conditions may allow the professional discretion of the Safety Officer to reasonably and safely not select or implement some typical measures which may be deemed unnecessary on a case by case basis. Mitigating conditions may include, but are not limited to: trained staff in the area; small size of the deficiency; area with lower impact to patient population; short duration of the deficiency; and other means of fire suppression, or fire alarm, or exit in the area. The original form is maintained as part of the Safety file.

- iii. Prior to construction, the project engineer convenes a pre-construction meeting that includes the design team, contractor, Engineering, infection control preventionist, and safety officer. The Project Engineer brings the original ILSM form to the meeting. The ILSMs are reviewed with the contractor, who signs off on the form. A copy of the form is maintained on the construction site; the original is returned to the Safety file.
- iv. Circumstances and conditions on job sites will change as work progresses. Project requirements will be re-evaluated, and the infection control preventionist and safety officer will modify the PCRA-ICRA and ILSM as appropriate. Changes will be maintained as part of the Safety file.
- v. When planning projects, project engineers must take into account construction activities that will take place outside of the main job site. It is necessary that PCRA-ICRA and ILSMs are completed for areas adjacent to, above, below or remote from the site. A separate set of forms will be required, as the PCRA-ICRA level and safety measures may be different from the main job site.

c. Compliance

- i. The Project Engineer is responsible for notifying Infection Control and Safety prior to the start of work, when activity levels or circumstances change, and when work has been completed.
- ii. Any significant breach in the PCRA- ICRA enclosure or other non-compliant condition must be reported to Infection Control, Safety Officer and the Project Engineer immediately. Corrective action must be taken and the area re-inspected.
- iii. Any significant deficiencies in the ILSM must be reported to Safety and the Project Engineer immediately. Corrective action must be taken and the area re-inspected.
- iv. The contractor is responsible for maintaining the construction site according to the PCRA-ICRA and ILSM. The contractor will maintain a log with Daily Construction Checklist form, which is completed twice per shift worked and signed off by the

superintendent. The log, along with the PCRA-ICRA permit, ILSM form and applicable HEPA log must be available on site at all times.

- v. As part of the monitoring process, the Project Engineer will complete a Daily Construction Checklist. Deficiencies are noted; appropriate services notified; corrective action is taken. If deficiencies or corrective actions are noted, the Project Engineer reviews the form with and obtains sign-off from the contractor's superintendent. The original form is maintained in the Engineering file.

d. Project Flow for Renovation or New Construction

- i. Renovation or new construction projects can have up to four distinct phases. Once a project area and program have been defined, the project proceeds through schematic design, design development, construction documentation, and construction administration.
- ii. The project team will address infection control and risk assessment throughout design to ensure that all Guideline requirements are satisfied. This applies to the main construction area and any adjacent or remote areas directly affected by the project.
- iii. Because projects vary in size and complexity, not every project will require all three design phases. The Project Engineer should use his or her best judgment to ensure that the documentation described below has been completed and presented to the Multidisciplinary Construction Safety Inspection Team.

e. Schematic Design

- i. The purpose of this project phase is to determine that all program elements fit within the space allotted and all general elements of design are included. For projects involving patient care, all CVAACC requirements are identified and included in the plan. Infection Control should be included in one meeting during the process. The Infection Control Project Design Review form is completed during this phase.

f. Design Development

- i. The purpose of this project phase is to confirm the plan and begin to provide detail for each space. The MEP and structural elements of the plan begin to take shape during design development. Note that schematic design may be folded into design development. If so, then the Infection Control Project Design Review form should be completed during design development.

- ii. ICRA permits and PCRA forms should be completed during design development for large or complex projects to ensure that all infection control and construction risks can be assessed and addressed during construction documentation.

g. Construction Documentation

- i. The purpose of this project phase is to solidify the plan, resulting in a complete set of drawings ready for construction bids. This includes all aspects of the program from an architectural and engineering perspective. If required, construction documents are reviewed and approved by the CVAACC. The first portion of the PCRA-ICRA Permit must be completed and included in the construction documents for Safety review.
- ii. The Project Engineer will prepare a package for review by the Construction Safety Inspection Team during construction documentation. This package will include:
 - 1) A drawing of the project area
 - 2) PCRA-ICRA form3. Interim Life Safety Measures (ILSM) Assessment Form
- iii. Separate PCRA-ICRA and ILSM forms are required for space adjacent to or remote from the construction area. This ensures that the appropriate precautions are taken, particularly since those precautions likely differ from the main project area.

h. Construction Administration

- i. The purpose of this project phase is to prepare for, commence and complete renovation or construction in the project area. Requirements apply not only to the construction area, but to spaces adjacent to or remote from the main project area.
- ii. Prior to the start of renovations, the Project Engineer convenes a pre-construction meeting that includes Infection Control and Safety. During this meeting:
 - 1) The infection control practitioner reviews the PCRA-ICRA requirements with the contractor, who signs-off on the form.
 - 2) The safety officer reviews the ILSMs with the contractor, who signs-off on the form.
 - 3) The contractor's daily check-list is reviewed with the contractor, noting that the log must be maintained on site at all times.
 - 4) Required signs are provided.
- iii. The Safety Officer is responsible for implementing the following ILSM's as deemed required:

- 1) Notifying the Local Fire Department
 - 2) Implementing a fire watch (as an ILSM – hot work fire watches are the responsibility of maintenance and contractors)
 - 3) Providing additional training as needed
 - 4) Conducting additional fire drills
 - 5) Providing localized staff training
 - 6) Providing building / organizational education
- iv. The Project Engineer (through contractor as directed) is responsible for implementing the following measures as deemed required:
- 1) Posting additional exit signs and inspecting exits
 - 2) Installing temporary fire alarm and detection systems
 - 3) Providing additional fire-fighting equipment
 - 4) Installing temporary construction barriers
 - 5) Providing increased surveillance of the work site
 - 6) Controlling combustible loading of the work site
 - 7) Inspecting and testing temporary systems monthly
- v. The Project Engineer, infection control practitioner and safety officer (or his / her designee) visits the site independently throughout construction. The type and intensity of construction activities will dictate the frequency. The following time frames are used for construction site visits:
- 1) The Project Engineer will inspect on a weekly basis
 - 2) The Safety Officer (of his / her designee) will inspect construction sites when an ILSM for a significant impairment is present
 - 3) The Infection Control Preventionist will inspect:
 - i. Level II: at the start and completion of work
 - ii. Level II and IV: on a weekly basis
- vi. It should be noted that different time frames may be necessary or advisable based on specific circumstances.
- vii. Upon completion of the work, and if the scope dictates, Infection Control and the Project Engineer inspect site to ensure that all work is complete, the area appropriately cleaned. If applicable, Safety inspects the site to ensure that new or different fire safety elements (i.e., evacuation maps, fire extinguishers, exit signs) are in place.
- i. Monitoring
- i. Implementation of ILSM's will be monitored by the Safety Officer.

- ii. Contractors are responsible for providing copies of the Contractor's Daily Check List to Engineering monthly. The previous month's data should be received no later than the 5th of the following month.
- iii. Project Engineers will file Site Observation Reports in the PCRA- ICRA / ILSM Safety files. Reports should include any correspondence or documentation related to a deficiency and the corrective action with the report.
- iv. On a quarterly basis, Engineering will prepare a report for review at a Construction Safety Committee meeting. Data submitted will include:
 - 1) Summary of project activity for the past month
 - 2) Audit of Site Observation reports
- v. Reports and forms are reviewed by the Construction Safety Committee monthly and maintained in Engineering and Safety share point sites.

5. **Appendices:** Appendix A, PCRA-ICRA Form with ILSMs

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Farid Mehr, PE

Chief, Engineering Service

Project Description: 37T

PART 1: INFECTION CONTROL RISK ASSESSMENT

Type	Construction Project Activity
Type A <input type="checkbox"/>	Inspection and Non-Invasive Activities. Include, but are not limited to: <ul style="list-style-type: none"> <input type="checkbox"/> Removal of ceiling tiles for visual inspection limited to 1 tile per 50 square feet <input type="checkbox"/> Painting (sanding limited to <10% of area). <input type="checkbox"/> 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 <input type="checkbox"/>	Small scale, short duration activities that create minimal dust. Include, but are not limited to: <ul style="list-style-type: none"> <input type="checkbox"/> Installation of telephone and computer cabling. <input type="checkbox"/> Access to chase spaces using doors or hatches (not cutting). <input type="checkbox"/> Sanding of walls for painting or wall covering (minor repairs – not sanding for drywall finishing)
Type C <input type="checkbox"/>	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: <ul style="list-style-type: none"> <input type="checkbox"/> Sanding (>50% of surface area – drywall finishing). <input type="checkbox"/> Cutting of walls or ceilings. <input type="checkbox"/> Removal of floor coverings, ceiling tiles, and casework. (>50% of surface area) <input type="checkbox"/> New wall construction. <input type="checkbox"/> Minor duct work or electrical work above ceilings. <input type="checkbox"/> Major cabling activities. <input type="checkbox"/> Any activity that cannot be completed within a single work shift.
Type D <input type="checkbox"/>	Major demolition and construction projects. Includes, but is not limited to: <ul style="list-style-type: none"> <input type="checkbox"/> Activities that require consecutive work shifts. <input type="checkbox"/> Requires heavy demolition or removal of a complete cabling system. <input type="checkbox"/> New construction.

Combined Pre-Construction and Infection Control Risk Assessment

Matrix of Precautions for Construction Projects

757-XX-XXX Project Title

<input type="checkbox"/> Low Risk	<input type="checkbox"/> Medium Risk	<input type="checkbox"/> High Risk	<input type="checkbox"/> Highest Risk
<input type="checkbox"/> Office areas <input type="checkbox"/> Out Doors <input type="checkbox"/> Electrical or Mechanical Rooms <input type="checkbox"/> Social Work <input type="checkbox"/> Retail Store <input type="checkbox"/> Stairwells <input type="checkbox"/> Conference Rooms <input type="checkbox"/> Hallways <input type="checkbox"/> EMS Areas	<input type="checkbox"/> Physical and Occupational Therapy <input type="checkbox"/> Outpatient Areas <input type="checkbox"/> Waiting Rooms <input type="checkbox"/> Sleep Lab <input type="checkbox"/> Mental Health (outpatient only) <input type="checkbox"/> Prosthetics / Orthotics <input type="checkbox"/> Domiciliary <input type="checkbox"/> Primary Care Clinics <input type="checkbox"/> CBOCs	<input type="checkbox"/> Urgent Care <input type="checkbox"/> Kitchen or Food Preparation / Dining / Canteen <input type="checkbox"/> Echocardiography <input type="checkbox"/> Radiology/MRI/CT <input type="checkbox"/> Respiratory Therapy <input type="checkbox"/> Nuclear Medicine <input type="checkbox"/> Senior Mental Health (In Patient or Senior) <input type="checkbox"/> Community Living Center (CLC) <input type="checkbox"/> Clean Supply	<input type="checkbox"/> Cardiac Cath, EP Lab or Cardiology <input type="checkbox"/> Sterile Processing Service (SPS) <input type="checkbox"/> All inpatient medical or surgical units <input type="checkbox"/> Care Units: PACU, MICU, SICU, TCU <input type="checkbox"/> Spinal Cord Injury (SCI) <input type="checkbox"/> Negative pressure isolation rooms <input type="checkbox"/> Outpatient chemotherapy or Oncology areas <input type="checkbox"/> Operating Rooms/Surgery Area <input type="checkbox"/> Endoscopy <input type="checkbox"/> Dialysis <input type="checkbox"/> Bronchoscopy <input type="checkbox"/> Pharmacy <input type="checkbox"/> Clinical Laboratories <input type="checkbox"/> Treatment /Procedure Rooms

IC Matrix Class of Precautions: Construction Project by Patient Risk Group and Construction Project Type

Patient Risk Group / Activity Type	<input type="checkbox"/> TYPE A	<input type="checkbox"/> TYPE B	<input type="checkbox"/> TYPE C	<input type="checkbox"/> TYPE D
<input type="checkbox"/> LOW Risk Group	<input type="checkbox"/> I (green)	<input type="checkbox"/> II (yellow)	<input type="checkbox"/> II (yellow)	<input type="checkbox"/> III/IV (pink)
<input type="checkbox"/> MEDIUM Risk Group	<input type="checkbox"/> I (green)	<input type="checkbox"/> II (yellow)	<input type="checkbox"/> III (pink)	<input type="checkbox"/> IV (red)
<input type="checkbox"/> HIGH Risk Group	<input type="checkbox"/> I (green)	<input type="checkbox"/> II (yellow)	<input type="checkbox"/> III/IV (pink)	<input type="checkbox"/> IV (red)
<input type="checkbox"/> HIGHEST Risk Group	<input type="checkbox"/> II (yellow)	<input type="checkbox"/> III/IV (pink)	<input type="checkbox"/> III/IV (pink)	<input type="checkbox"/> IV (red)

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

Step 3: ☐ Class I ☐ Class II ☐ Class III ☐ Class IV

Combined Pre-Construction and Infection Control Risk Assessment

Matrix of Precautions for Construction Projects

757-XX-XXX Project Title

CLASS	During construction project, the following must be performed daily:	Upon completion of the phased work in any room, the following must be performed per room:
CLASS I	<ol style="list-style-type: none"> 1. Execute work by methods to minimize raising dust from construction operations. 2. For visual inspection only, dampen ceiling tile with water spray before removing. Replace a ceiling tile immediately after inspection; do not leave unattended. 	Clean up ceiling tile and flooring surfaces below with HEPA filtered vacuum or damp mop.
CLASS II	<p><i>As above and:</i></p> <ol style="list-style-type: none"> 1. Provide active means to prevent dust from dispersing. Dust left on the floors, clothing and/or body is not allowed in order to prevent spreading and tracking. "Active means" are: <ol style="list-style-type: none"> a. Vacuum attachments on tools with HEPA vacuum when generating dust, or b. HEPA vacuuming immediately as the dust is generated. c. Remove or isolate HVAC system in areas where work is being performed. d. Water mist work surfaces to control dust while cutting. e. Seal unused doors with duct tape. f. Block off and seal all HVAC air vents. g. Place +tacky mat at inside of entrance of work area and change frequently or when ineffective. h. Wet mop and/or vacuum with +HEPA-filtered vacuum the work area before leaving the site. Brooming is not sufficient. 2. Whenever transporting outside of construction site, wipe materials, equipment and work surfaces with EPA registered, unscented +disinfectant, which has manufacturer's labeling as a bactericide, tuberculocide, virucide, and fungicide. 3. There shall be no standing, uncovered water during construction. This includes water in equipment drip pans and open containers within the construction areas. All accidental spills must be cleaned up and dried within 12 hours. Remove and dispose of porous materials that remain damp for more than 72 hours. 	<p><i>As above and:</i></p> <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 and area cleanup 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 Pressure Ventilation +(NPV) at 0.01" Water Column (WC) within the work site utilizing NPV machine. 3. NPV monitoring devices should be visible from outside the worksite and readings shall be documented daily or more often as needed. Keep +tracking monitoring device and +tracking log at outside of entrance at the site. 4. Contain construction waste before transport in tightly covered containers. Tape covering, unless using form-fitting solid lid. 5. Seal holes, pipes, conduits, and punctures etc. appropriately during construction. 	<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 and inspected by COR, Safety and Infection Control.
CLASS IV	<p><i>As above and:</i></p> <ol style="list-style-type: none"> 1. +Seal holes, pipes, conduits, and punctures. 2. Construct anteroom and 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. 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. 	<i>As above</i>

Do construction documents include all infection control requirements?

☐ Yes

☐ No

☐ N/A

Identify the areas surrounding the project area, assessing potential impact.

<i>Unit Below</i>	<i>Unit Above</i>	<i>East</i>	<i>West</i>	<i>North</i>	<i>South</i>
37T	37T	37T	37T	37T	37T
<i>Risk Group</i>	<i>Risk Group</i>	<i>Risk Group</i>	<i>Risk Group</i>	<i>Risk Group</i>	<i>Risk Group</i>

Identify the impact and any precautions necessary to minimize disruptions to surrounding areas:

37T

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

37T

Identify containment measures using prior assessment. What types of barriers such as solid wall barriers?

Will barrier entry ways require doors or zipper flaps? 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.

37T

Consider potential risk of water damage. Is there a risk due to compromising structural integrity (e.g., wall, ceiling, roof)?

☐ Yes

☐ No

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

37T

Do plans allow for adequate number of isolation/negative airflow rooms due to those taken out of service during construction?

☐ Yes

☐ No

☐ N/A

Do the plans allow for the required number and type of hand washing sinks due to those taken out of service during construction?

☐ Yes

☐ No

☐ N/A

Does the infection control staff agree with the minimum number of sinks due to those taken out of service during construction for this project? (Verify against the American Institute of Architects Guidelines for types and area.)

☐ Yes

☐ No

☐ N/A

Does the infection control staff agree with the plans relative to clean and soiled utility rooms in lieu of those taken under construction?

☐ Yes

☐ No

☐ N/A

Tuberculosis Risk Assessment. A risk assessment must be conducted for the transmission of TB to the contracted construction workers based upon the construction site location, patient population, hospital layout, and the defined risk as outlined in the "CDC Guidelines for preventing the transmission of Mycobacterium Tuberculosis in Health-Care Setting, 2005."

☐ Construction project is high risk for TB transmission. Detail safety measures. Requires contractor pre-testing.

☐ Construction project is low risk for TB transmission. No pre-contract testing required.

Who is responsible for daily cleaning inside work area?

37T

Is terminal cleaning required at the end of each work day?

☐ Yes ☐ No

If yes, who is responsible for coordinating the terminal cleaning?

37T

Are there any special needs required for terminal cleaning at the end of the project?

☐ Yes ☐ No

If yes, list special needs.

37T

Do construction drawings show locations and details of construction barriers?

☐ Yes ☐ No ☐ N/A

Do construction drawings show necessary modifications to the HVAC system needed to meet NPV requirements?

☐ Yes ☐ No ☐ N/A

Do construction documents require the contractor to provide a pressure indicator?

☐ Yes ☐ No ☐ N/A

Do the construction drawings show the general location of waste dumpster(s) or bins?

☐ Yes ☐ No ☐ N/A

Do the construction documents require the contractor to submit detailed safety and infection control plans for VA approval (i.e. location and types of barriers)?

☐ Yes ☐ No ☐ N/A

PART 2: PRE-CONSTRUCTION RISK ASSESSMENT**Utility Interruptions and/or impact:**

During the course of the project are any of the following likely to be interrupted or impacted in any area of the facility?

Yes	No	
<input type="checkbox"/>	<input type="checkbox"/>	Water Supply (Including shutting off any valves)
<input type="checkbox"/>	<input type="checkbox"/>	Sewer Service
<input type="checkbox"/>	<input type="checkbox"/>	Roof/Storm Drainage
<input type="checkbox"/>	<input type="checkbox"/>	Normal Power
<input type="checkbox"/>	<input type="checkbox"/>	Emergency Power
<input type="checkbox"/>	<input type="checkbox"/>	Ventilation Systems
<input type="checkbox"/>	<input type="checkbox"/>	Oxygen
<input type="checkbox"/>	<input type="checkbox"/>	Medical Air
<input type="checkbox"/>	<input type="checkbox"/>	Medical Vacuum
<input type="checkbox"/>	<input type="checkbox"/>	Other Medical Gases:
<input type="checkbox"/>	<input type="checkbox"/>	HVAC
<input type="checkbox"/>	<input type="checkbox"/>	Sprinkler System

For any systems where interruptions are foreseen, describe the steps to be taken to mitigate the impacts:
 37T

Describe preventative measures that will be taken to insure that an unplanned interruption will not occur:
 37T

To be completed if the water supply will be interrupted or impacted in any way: ☐ N/A

Domestic Water Outage	YES	NO
Will valves be shut off longer than 48 hours?	<input type="checkbox"/>	<input type="checkbox"/>
Required Actions if YES: Flush plumbing lines from closed valve to all outlets for a minimum of 10 minutes at highest temperature.		

Minor Domestic Water System Modifications and Repairs	YES	NO
Will the project modify any valves in the existing plumbing system?	<input type="checkbox"/>	<input type="checkbox"/>
Will the project modify existing plumbing lines less than or equal to 18 feet?	<input type="checkbox"/>	<input type="checkbox"/>
Required Actions if YES to either or both: New pipe, fittings, and valves required for connection may be spray-disinfected or swabbed with a minimum of 1-5 percent solution of chlorine just prior to being installed. Flush plumbing lines from closed valve to all outlets for a minimum of 10 minutes at highest temperature. After the appropriate procedures have been completed, the existing main may be returned to service prior to the completion of bacteriological testing in order to minimize disruptions to the facility. Bacteriological testing is required to be completed per AWWA standards.		

Major Domestic Water System Modifications and Installations	YES	NO
Will the project modify install any new plumbing lines?	<input type="checkbox"/>	<input type="checkbox"/>
Will the project modify existing plumbing lines greater than 18 feet?	<input type="checkbox"/>	<input type="checkbox"/>

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Required Actions if YES to either or both: Follow all AWWA requirements.**Do construction documents show any additional work related to water safety, including but not limited to: AWWA requirements, responsibility of contractor for flushing and disinfecting, etc.**☐ Yes☐ No☐ N/A**Noise and Vibration Assessment:****List any activities that will generate noise and/or vibration likely to be disruptive.**

Activity: 37T

Time & Duration: 37T

Mitigation Strategies: 37T

Activity: 37T

Time & Duration: 37T

Mitigation Strategies: 37T

Safety Hazards:**List any hazardous materials to be used or stored within the project area:**

37T

Is the work likely to generate any noxious or unusual odors?

☐ Yes☐ No

If yes, what steps will be taken to minimize impact:

37T

Are there any known or suspected contaminants?

☐ Asbestos☐ Lead☐ Mold☐ No known or suspected contaminants

List steps to be taken to minimize impact:

37T

Does the planned work include any of the following?

☐ Confined space entry☐ Excavation requiring protection☐ Work requiring fall protection☐ Lock Out Tag Out☐ Cranes or hoisting equipment☐ Live electrical work☐ Scaffolding☐ Interruption of normal pedestrian or vehicular traffic☐ N/A

List steps to reduce/mitigate risk of any items checked:

37T

Will there be hot work done on this project?

☐ Yes☐ No

If yes, a hot work permit will be required.

Will the project move, change access to, or hinder the use of an eyewash and/or shower station?

☐ Yes☐ No

If yes, describe plan to mitigate risk.

PART 3: INTERIM LIFE SAFETY MEASURES (ILSM)**Project Evaluation**

Review the project/repair using the following criteria and indicate whether each item is applicable by marking the appropriate box. For any "YES" responses, coordinate with the Safety Office to review the required actions for appropriate interim life safety measures. In the Interim Life Safety Summary Sheet (PART II) at the bottom of this document, list specifically how the required interim life safety measures will be implemented for this project/repair impacting Life Safety. For the INTERIM LIFE SAFETY MEASURES Daily Inspection sheet (PART III), copy the measures from PART II into PART III, and issue PART III only to the Contractor for daily ILSM inspections.

A. EXITS	YES	NO
1. Does the project/repair have the potential of affecting an exit or other means of egress?	<input type="checkbox"/>	<input type="checkbox"/>
2. Will the affected exit be used by other than the contractor's/maintenance personnel?	<input type="checkbox"/>	<input type="checkbox"/>
Required Actions: If a means of egress is obstructed, an alternate must be designated and training is required for those persons affected. Safety office will conduct/coordinate training. Means of exiting construction/repair areas must be inspected on a daily basis to prevent blockages due to debris. This needs to be documented and can be done by the contractor/shop foreman or shop designee .		

B. EMERGENCY ACCESS	YES	NO
1. Does the project/repair have the potential to obstruct access to the emergency department?	<input type="checkbox"/>	<input type="checkbox"/>
2. Does the project/repair have the potential of obstructing access for fire department connections, hydrants, or fire lanes?	<input type="checkbox"/>	<input type="checkbox"/>
Required Actions: If an emergency access is obstructed, an alternate means of access must be designated and the Columbus Fire Department and VA Police must be notified by the Safety Office of the alternative.		

C. FIRE PROTECTION	YES	NO
1. Does the project have the potential of impairing existing fire alarm, detection, or suppression systems?	<input type="checkbox"/>	<input type="checkbox"/>
2. Will temporary fire protection systems be required as part this project/repair?	<input type="checkbox"/>	<input type="checkbox"/>
Required Actions: If a fire protection or alarm system is to be rendered non-operational for more than 4 hours out of a 24-hour period, either a substitute system or a fire watch must be initiated. If neither of these methods can be implemented, the area must be closed down and evacuated. All of these measures must be coordinated with the Safety Office, VA Police, and the affected staff .		

D. TEMPORARY PARTITIONS	YES	NO
1. Will construction compromise any fire or smoke partitions or barriers?	<input type="checkbox"/>	<input type="checkbox"/>
Required Actions: If construction/repair involves major breaches in fire or smoke barriers, the contractor must erect temporary walls around the construction area equal to the barrier that has been compromised.		

E. ADDITIONAL FIRE FIGHTING EQUIPMENT AND TRAINING	YES	NO
1. Does the area affected by the project warrant placement of additional fire protection equipment?	<input type="checkbox"/>	<input type="checkbox"/>

Combined Pre-Construction and Infection Control Risk Assessment

Matrix of Precautions for Construction Projects

757-XX-XXX Project Title

2. Will additional firefighting training be required by affected personal?	<input type="checkbox"/>	<input type="checkbox"/>
Required Actions: If the fire load of a particular area is significantly increased over normal due to construction, additional firefighting equipment (such as fire extinguishers) will be required. If any of this additional firefighting equipment is of a different type than that already available in the affected area, training in the use of this equipment for staff or contractor personnel is required.		

F. SMOKING POLICY	YES	NO
1. Will variance to existing medical center smoking policy be permitted?	<input type="checkbox"/>	<input type="checkbox"/>
Required Actions: If designated smoking areas are impacted or closed due to construction, temporary areas may need to be established.		

G. COMBUSTIBLE LOAD LEVELS	YES	NO
1. Does the project involve the storage of flammable or combustible materials?	<input type="checkbox"/>	<input type="checkbox"/>
2. Does the project have the potential for creating flammable or combustible debris?	<input type="checkbox"/>	<input type="checkbox"/>
Required Actions: Surveillance of construction sites will need to be increased to prevent the accumulation of excess flammable or combustible debris. The fire load of the construction area must be kept to a minimum.		

H. FIRE DRILLS	YES	NO
1. Does the project warrant additional fire drills within the affected areas?	<input type="checkbox"/>	<input type="checkbox"/>
Required Actions: If the life safety features of a particular area are adversely impacted by construction, then the frequency of fire drills must be increased to two per shift per quarter for healthcare/lodger occupancies. Adverse impacts would include blocked fire exits, impaired fire alarm or sprinkler systems, or major compromises in fire or smoke barriers or compartments.		

I. HAZARD SURVEILLANCE	YES	NO
1. Does the project present additional hazards, such as excavations, construction storage or field offices, crane work, high voltage, confined spaces, scaffolding, etc., which warrant increased hazard surveillance?	<input type="checkbox"/>	<input type="checkbox"/>
Required Actions: If yes, then additional project surveillance is warranted to identify potential life safety issues.		

J. OCCUPATIONAL HEALTH ISSUES	YES	NO
1. Do construction workers need to be restricted to dedicated corridors, elevators, or exits?	<input type="checkbox"/>	<input type="checkbox"/>
2. Is special ventilation required for the area during construction?	<input type="checkbox"/>	<input type="checkbox"/>
3. Will any disruptions of the water/plumbing system affect the purity of potable water?	<input type="checkbox"/>	<input type="checkbox"/>
4. Will the construction activities be hazardous to immune-compromised patients?	<input type="checkbox"/>	<input type="checkbox"/>
Required Actions: Any construction activities that adversely affect occupational health issues must be reviewed to minimize the effects. If negative pressurization is required for "special ventilation", then include a daily reporting of the pressure measurement as part of the the daily ILSM log.		

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K. ADDITIONAL PERSONNEL TRAINING	YES	NO
1. Does the project have the potential of affecting structural features of the fire safety systems?	<input type="checkbox"/>	<input type="checkbox"/>
2. Does the project have the potential of affecting compartmentalization features of the fire safety systems?	<input type="checkbox"/>	<input type="checkbox"/>
3. Does the project have the potential for negatively affecting infection control procedures?	<input type="checkbox"/>	<input type="checkbox"/>
Required Actions: Affected personnel must be notified when fire safety systems or infection control procedures are compromised and trained in temporary changes in procedures to compensate for the impaired systems. Examples are the need for alternate fire exits, alarm or sprinkler systems or to evacuate behind secondary fire barriers or compartments due to fire or smoke partition compromises.		

L. FACILITY-WIDE TRAINING	YES	NO
1. Does the project present life safety code deficiencies or construction hazards which warrant facility-wide education of personnel concerning the interim life safety measures?	<input type="checkbox"/>	<input type="checkbox"/>
2. Does the project present occupational health deficiencies which warrant facility-wide education of personnel concerning those procedures?	<input type="checkbox"/>	<input type="checkbox"/>
Required Actions: Training must be provided facility wide to educate staff, patients and visitors to any life safety system that is impaired throughout the entire building. In addition, the Columbus Fire Department and VA Police will be notified.		

Part 4: APPROVALS:

Contracting Officer's Representative (COR): _____

Safety: _____

Infection Control: _____

Patient Safety: _____

Project Section Chief: _____