



 <p>Winnipeg Regional Health Authority Office régional de la santé de Winnipeg Caring for Health À l'écoute de notre santé</p> <p>Operational Directives</p>	<p>WRHA</p> <p>Infection Prevention & Control Program</p>		<p>Level:</p> <p>1A</p>
	<p>Infection Prevention and Control for Construction, Renovation and Maintenance in Community Health Services</p>	<p>Operational Directive Number:</p>	<p>Page</p> <p>1 of 14</p>
	<p>Approval Signature:</p>	<p>Department: Infection Prevention and Control</p>	
	<p>Date: January 23, 2013</p>	<p>Supersedes: New</p>	

1.0 PURPOSE:

- 1.1 To minimize healthcare associated infections due to construction, renovation and maintenance.
- 1.2 To ensure infection prevention and control guidelines are included in the planning and implementation of work throughout the Winnipeg Health Region to reduce the risk of healthcare associated infections.

2.0 DEFINITIONS:

- 2.1 Capital Planning (CP):
The department(s) responsible for capital and non-capital projects (new construction and renovations) within the Winnipeg Health Region sites.
- 2.2 Construction Start-Up Phase:
After award of a project contract and before construction begins, this phase includes a 'start-up' meeting chaired by CP and/or the design consultant for the project. This meeting is attended by the contractor, their representatives, as well as site and regional representatives including Facility Management (FM), Infection Prevention and Control (IP&C), and primary program contacts. This meeting serves to collect and clarify: contact information, security requirements, access, privacy requirements, and review service shutdown and IP&C procedures, among others, specific to the project.



2.3 Design Phase:

Pre-construction phase of a project where project scope is determined and construction contract documents are prepared. It is during this phase IP&C is engaged to review and inform the design of the project as well as complete an Infection Control Risk Assessment (ICRA) for inclusion in the construction contract.

Note: This is done in consultation and consensus with FM, CP and other related stakeholders.

2.4 Facility Management (FM):

The department(s) responsible for the maintenance and operation, housekeeping and security of all building related systems and maintenance projects.

2.5 Healthcare Associated Infection (HAI):

An infection occurring in a patient/resident/client during the process of care in a hospital or other healthcare facility, which was not present or incubating at the time of admission.

2.6 Infection Control Risk Assessment (ICRA):

A matrix of precautions for construction, renovation and maintenance as described in Appendix A.

2.7 Infection Prevention and Control (IP&C):

The department responsible for the prevention and control of infection transmission in WRHA healthcare facilities, personal care homes and community sites.

2.8 Infection Prevention and Control Construction Checklist:

A checklist used to define parameters and IP&C requirements for the work as described in Appendix B.

2.9 Manager/Designate:

The person responsible for the day-to-day operations of the area the work is to take place in e.g., Unit Manager, Program Manager, Manager of Facility and Support Services (MFSS).

2.10 Patient:

A patient, resident or client.

2.11 Pre-Occupancy Phase:

Post-construction phase of a project where the primary project stakeholders review the conditions of the space to verify its readiness for its intended use, following a terminal cleaning and prior to the space being occupied.



2.12 Project Contact:

The primary contact responsible for the work being performed. This may include but is not limited to:

- Ensuring construction, renovation and/or maintenance meet the contract, ICRA measures and safety guidelines.
 - For construction and renovation the contact is usually a member of CP.
 - For maintenance the contact is usually a member of FM.

2.13 Staff:

All persons employed by the WRHA facilities, or WRHA funded facilities, as well as members of the medical staff, volunteers, board members, students and other associated through contracts.

2.14 Work:

For the purposes of this operational directive, work shall be defined as construction, renovation and or maintenance/repair work requiring Class of Precautions III or IV as described in Appendix B. However, IP&C considerations will be part of any work undertaken within WRHA facilities, regardless of class of precautions required.

3.0 OPERATIONAL DIRECTIVE:

3.1 The Manager/Designate will be the first point of contact for FM regarding Work.

3.2 The Manager/Designate or FM/CP/designate shall consult the ICP with questions or if clarification is required or dependent on the scope of work.

3.3 The Manager/Designate, CP, or FM shall consult the ICP/designate during all stages of the Design Phase of **renovation** or **construction** projects managed by CP or FM.

3.3.1 The ICRA shall outline the infection prevention and control requirements for all Work and shall be developed collaboratively by CP or FM and IP&C when required for Work.

3.4 While Work is in progress, the ICP and Manager/Designate shall monitor compliance with the required procedures and report concerns to the Project Contact.

3.5 The ICRA is to be reviewed and updated as required for the duration of the project. In the event the scope of Work changes, a new ICRA shall be completed.



- 3.6 During the Construction Start-Up Phase, a mandatory orientation on infection prevention and control will be coordinated by FM or CP, along with IP&C and given to the prime contractor and major sub-trade representatives.
- 3.7 It is the responsibility of any staff who observe clients or staff at risk of exposure to potentially pathogenic microorganisms to immediately notify the Project Contact and the ICP/designate for remediation and consideration of a Work stoppage.
- 3.8 Manager/Designate shall ensure clients, families and visitors in affected areas are informed of any potential impacts while work is in progress. This would be done in consultation with CP, FM or IP&C.
- 3.9 The ICP shall be an active member of the multidisciplinary team throughout the construction project, from the planning stage to Pre-Occupancy Phase.

4.0 **PROCEDURE:**

4.1 **Infection Prevention and Control (IP&C)**

- 4.1.1 In collaboration with the Project Contact and Manager/Designate, IP&C will use the checklist (Appendix B) to determine the preventative measures required for the Work, including Design Phase.
- 4.1.2. **Before** the start of the Work:
 - Document and approve the completed checklist (Appendix B).
 - Develop and document specific measures required to protect clients,, visitors and staff from contaminated air, water and surfaces during Work. Review and update these measures as required for the duration of the Work in consultation with Project Contact.
- 4.1.3 Review Project area prior to commencement of Work and provide comment/clearance that the area is safe for Work
- 4.1.4 Attend Work related meetings as required.
- 4.1.5 Assist in the planning for potential disruption of services during the course of Work, if infection prevention and control measures are required.
- 4.1.6 Communicate and collaborate with the Project Contact to ensure the IP & C measures are adequate on an ongoing basis.
- 4.1.7 Review Work and any suspected breaches in infection prevention and control measures with the Project Contact. If required, coordinate with FM to inspect the Work area before Work begins and as required during Work.



- 4.1.8 Determine the frequency/schedule of inspections in collaboration with the Project Contact or at Work related meeting(s).
- Will be based on the population risk group, the intensity of Work and changes in IP&C measures.
 - For visits requiring internal inspection of the Work area:
 - Confirm attendance with construction foreman/site supervisor
 - Follow all required safety precautions
 - Wear required personal protective equipment
- 4.1.9 Will be an integral member of project teams for Work within WRHA facilities, and will be included from the beginning of the Design Phase of each project as it relates to infection prevention and control issues.
- 4.1.10 During Design, Work and Pre-Occupancy Phases, provide infection control recommendations consistent with the documents listed in Appendix B.
- This is done in consultation and consensus with FM, CP and other related stakeholders.

4.2 Facility Management (FM)

- 4.2.1 Assess Work undertaken:
- FM and Manager/Designate will work together to identify Population Risk Group, Construction Activity Type and Preventive Measure Analysis using Appendix A.
 - Any contracts or Work performed by internal or external personnel shall follow Canadian Standards Association (CSA) standard Z317.13-07 (see Appendix D).
 - Facility Guidelines Institute (FGI) Guidelines and Canadian Standards Association (CSA) Standard Z8000 may be used as references (see Appendix D).
 - Consult IP&C if clarification is required.
- 4.2.2 Plan and implement traffic restrictions to Work site.
- 4.2.3 Notify Manager/Designate and ICP if required, of planned disruption to services, for example: air, water, medical gases to client areas providing sufficient time for the implementation of alternative arrangements.
- Use existing shut down procedures if appropriate.
- 4.2.4 Ensure Work is completed prior to Pre-Occupancy, for example:
- Thorough cleaning of grilles and the changing of filters at end of Work, prior to use.
 - Filters are checked and evaluated when Work occurs near air intakes.



4.2.5 Report completion of Work to Manager/Designate. If required, coordinate a Pre-Occupancy Phase meeting with all stakeholders prior to the space being occupied. This group may include but is not limited to:

- Manager/Designate
- Prime Contractor
- Prime Consultant
- Facility Management / Housekeeping
- Move Coordinator
- IP&C
- Occupational Health

Infection prevention and control issues to discuss include but are not limited to:

- Work area cleaning, including:
 - Settle time (time between completion of Work and final cleaning and return to use)
- Timing of reopening
- Walk through
- Ventilation system checks e.g., air balance, pressurization, microbial contamination and air exchange rates as designed
- Outstanding deficiencies

4.3 Housekeeping Services

- Clean daily, and more often as necessary, in the area adjacent to Work.
- Thoroughly clean (including high dusting) and damp mop area after Work is completed.
- After cleaning/vacuuming (Use HEPA-filtered vacuum only) the area, allow three hours for the dust to settle before the final damp mopping is done.
- If the area was to be cleaned by a contractor performing the construction or renovation, a facility manager /designate will inspect the area to verify its readiness for its intended use prior to occupancy.

4.4 Capital Planning (CP)

4.4.1 Ensure project bid documents and contracts include specifications for infection prevention and control measures:

- As a minimum, the contract language will indicate that the contractor should meet CSA standard Z317.13-07.
- Bid documents shall indicate phasing and lines of hoarding (dust barriers) as required.

4.4.2 CP shall notify IP&C of any significant changes of scope of Work that impact IP&C.



4.4.3 Report completion of Work to Manager/Designate. If required, coordinate a Pre-Occupancy Phase meeting with all stakeholders prior to the space being occupied. This group may include but is not limited to:

- Manager/Designate
- Prime Contractor
- Prime Consultant
- Facility Management
- Move coordinator
- IP&C

Infection prevention and control issues to discuss include but are not limited to:

- Work area cleaning, including:
 - Settle time (time between completion of Work and final cleaning and return to use)
- Timing of reopening
- Walk through
- Ventilation system checks e.g., air balance, pressurization, microbial contamination and air exchange rates as designed
- Outstanding deficiencies

4.5 **Manager/Designate**

4.5.1 Consult IP&C if clarification is required.

4.5.2 Work in collaboration with FM or CP and IP&C if required for Work.

4.5.3 Identify all clients potentially affected by the Work; relocate as appropriate.

4.5.4 Keep unauthorized persons (clients, visitors, staff) out of the Work area until formally advised by Project Contact.

4.5.5 Collaborate with the Facility and Support Services Manager to ensure protection of sterile/clean supplies.

4.5.6 Communicate with Project Contact if any breach in a Work area is found in a Patient care area.



5.0 **REFERENCES:**

- 5.1 Calgary Health Region regional policy no. 1346: Infection Prevention and Control For Patient Care and Related Areas During Construction, Renovation and Maintenance. Retrieved October 1, 2010 from: [Calgary Health Region Policy - Infection Prevention and Control During Construction, Renovation and Maintenance.](#)
- 5.2 Canadian Standards Association. (2007) Infection Control During Construction, Renovation, and Maintenance of Health Care Facilities, CSA-Z317.13-07.
- 5.3 Canadian Standards Association. (2007) Infection Control During Construction, Renovation, and Maintenance of Health Care Facilities, CSA-Z317.13-07 Update #3.
- 5.4 Capital Health Edmonton Area. (2007) Regional Infection Prevention and Control Best Practice Recommendation. Infection Prevention and Control Preventative Measures Analysis - Infection Control Risk Assessment (ICRA) and Preventative Measures required for all construction, renovation, maintenance and repair work activities.
- 5.5 Guidelines for Design and Construction of Health Care Facilities. (2010 Edition). The Facility Guidelines Institute. Retrieved December 22, 2010 from: <http://www.fgiguilines.org/2010guidelines.html>
- 5.6 Infection control risk assessment (ICRA) 2009. Retrieved August 12, 2010 from: <http://www.premierinc.com/quality-safety/tools-services/safety/topics/construction/downloads/ICRA-MatrixColorRevised-091109.pdf>.
- 5.7 Kingston Hospitals Infection Control Manual. (2005, October) Prevention of Infections – Construction. Sec 2-70, pp 2-17.
- 5.8 Prevention of hospital-acquired infections. A practical guide 2nd edition WHO 2002 G. Ducelet et al. Retrieved August 1, 2008 from: http://whqlibdoc.who.int/hq/2002/WHO_CDS_CSR_EPH_2002.12.pdf.

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Appendix A Infection Control Risk Assessment for Construction and Renovation

TABLE 1 Construction Type

check one	Construction Type	Construction Activity
	Type A	<p>Inspection and non-invasive activities. These include, but are not limited to:</p> <ul style="list-style-type: none"> (a) activities that require removal of not more than one ceiling tile or require wall or ceiling panels to be opened; (b) painting (but not sanding) and wall covering; (c) electrical trim work; (d) minor plumbing work that disrupts water supply to a localized patient care area (i.e. 1 room) for < 15 min; (e) other maintenance 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. These include, but are not limited to,</p> <ul style="list-style-type: none"> (a) activities that require access to chase spaces; (b) where dust migration can be controlled, cutting of walls or ceilings for installing or repairing minor electrical work, ventilation components, telephone wires, or computer cables; (c) sanding or repair of a small area of a wall; (d) plumbing work that disrupts the water supply of more than one patient care area (i.e. 2 or more rooms) for < 30 min.
	Type C	<p>Activities that generate moderate to high levels of dust, require demolition or removal of any fixed facility component (e.g., sink) or assembly (e.g., countertop or cupboard), or cannot be completed in a single work shift. These include, but are not limited to,</p> <ul style="list-style-type: none"> (a) activities that require sanding of a wall in preparation for painting or wall covering; (b) removal of floor coverings, ceiling tiles, and casework; (c) new wall construction; (d) minor ductwork (e) electrical work above ceilings; (f) major cabling activities; (g) plumbing work that disrupts water supply of more than 1 patient care area (i.e., 2 or more rooms) for > 30 min but < 1 h.
	Type D	<p>Activities that generate high levels of dust, and major demolition and construction activities requiring consecutive work shifts to complete. These include, but are not limited to,</p> <ul style="list-style-type: none"> (a) activities that involve heavy demolition or removal of a complete cabling system; (b) new construction that requires consecutive work shifts to complete; (c) plumbing work that disrupts the water supply of more than one patient care area (i.e., 2 or more rooms) for 1h or more.

TABLE 2 Population Risk Group

check one	Population Risk Group	Areas
	Group 1 Low Risk	Office areas, Unoccupied wards, Public areas, Laundry and soiled linen cleaning areas, Physical plant workshops and housekeeping areas.
	Group 2 Medium Risk	Patient care areas, unless listed in Group 3 or Group 4, Outpatient clinics (except oncology and surgery), admission and discharge units, waiting rooms, autopsy and morgue, occupational therapy areas remote from patient care areas, physical therapy areas remote from patient care areas.
	Group 3 Medium to High Risk	Emergency (except trauma rooms), Diagnostic imaging, Nuclear medicine, Echocardiography, Laboratories, General medical and surgical wards, Pediatrics, Geriatrics, Long-term care, Food preparation, serving, and dining areas, Respiratory therapy, Clean linen handling and storage areas, Labour and birthing rooms (non-operating), nurseries for healthy newborns, Hydrotherapy.
	Group 4 Highest Risk	Operating rooms, (including prep, induction, post-anaesthetic care unit (PACU), and scrub areas), Anaesthesia storage areas and workrooms, Wards and outpatient clinics for patients with AIDS or other immunodeficiency diseases, Dialysis units, Cardiac catheterization and angiography areas, Endoscopy, Pharmacy admixture rooms, Sterile processing rooms, Sterile supply areas, Protective environment isolation rooms, Tissue culture laboratories, Bronchoscopy, Cystoscopy, Dental procedure rooms, Central processing department, Intensive care units (ICUs), Transplant units and outpatient clinics for transplant patients, Critical care nurseries (NICU), Labour and delivery operating rooms, Cardiovascular and cardiology patient area, Burn care units, Animal Rooms, Trauma Rooms, Pacemaker insertion rooms.

After determining the construction activity (Table 1) and population risk group (Table 2), use the following Matrix to determine the level of Infection Control Preventive Measures required for this project:



Table 3 Preventive Measures Analysis

Risk Group	Construction Activity			
	Type A	Type B	Type C	Type D
Risk Group 1	I	II	II	III/IV *
Risk Group 2	I	II	III	IV
Risk Group 3	I	III	III/IV *	IV
Risk Group 4	I-III **	III/IV *	III/IV *	IV

* When the preventive measure is III/IV, a multidisciplinary team shall determine the appropriate prevention measure, either Group 3 or Group 4.

** If population risk group is Group 4 & construction activity is Type A, consult infection prevention & control to determine the appropriate preventive measure (I, II, or III).

Prevention Measure I Prevention Measure II Prevention Measure III Prevention Measure IV

Appendix B

Required Infection Control Preventive Measures - Checklist

Please refer to the table below for a description of the required Infection Control Preventive Measures.

	During Construction Project	√	During Construction Project	√
Preventive Measure I	<p><u>DUST CONTROL</u></p> <p>(a) close access panels and replace displaced tiles immediately after Type A activity (e.g., visual inspection) has been completed;</p> <p>(b) clean work area with a HEPA filter-equipped vacuum cleaner, if necessary</p> <p><u>DEBRIS AND CLEAN UP</u></p> <p>(a) clean work area upon completion of task.</p>		<p><u>PLUMBING</u></p> <p>(a) ensure that gaskets and items made of materials that support the growth of <i>Legionella</i> are not being used;</p> <p>(b) ensure that faucet aerators are not installed or used;</p> <p>(c) maintain a dry work environment; and</p> <p>(d) schedule water interruptions during periods of low user activity (e.g., evenings)</p> <p>(e) report discolored water and water leaks to the maintenance and IP&C departments.</p>	
Preventive Measure II	<p>FOLLOW PREVENTIVE MEASURES (I) IN ADDITION TO THE FOLLOWING:</p> <p><u>DUST CONTROL</u></p> <p>(a) use drop sheets</p> <p>(b) water –mist work surfaces while cutting;</p> <p>(c) seal windows and unused doors;</p> <p>(d) seal plumbing penetrations, electrical outlets , and any other sources of potential air leaks in the construction area;</p> <p>(e) seal air vents in the construction area; and</p> <p>(f) place a walk-off mat outside the entrance to the construction area to trap dust from the equipment and shoes of personnel leaving the area.</p> <p><u>PLUMBING</u></p> <p>(a) avoid using collection tanks and long pipes;</p> <p>(b) maintain a dry work environment and report any water leaks through walls or substructures;</p> <p>(c) water lines shall be flushed to waste before reuse after new plumbing has been installed.</p> <p>(d) following excavations on facility grounds or when the plumbing system has been shut down and then repressurized stored water shall be superheated to 70°C, or hyperchlorinated (to a minimum 50 parts per million) before it is repressurized.</p> <p>Note: Preventive technologies (e.g., silver-</p>		<p><u>BUILDING VENTILATION SYSTEMS</u></p> <p>If possible, disable ventilation system until the project has been completed. Alternatively, an engineering analysis shall be performed to ensure that the fan systems continue to perform their intended function and that the operation of the HVAC system is not compromised.</p> <p><u>DEBRIS AND CLEAN UP</u></p> <p>(a) place debris in covered containers or cover with a moistened sheet before transporting it for disposal.</p> <p>(b) clean area with a HEPA filter-equipped vacuum cleaner, a wet mop, or both, as necessary and horizontal work surfaces have been wiped with a disinfectant</p> <p>(c) place supplies and equipment in covered containers during transportation through the health care facility</p> <p>(d) remove debris in the evening when patients are in their rooms and visitors have left. If this is not possible, debris should be removed at the end of the workday.</p>	



	<p><i>copper ion treatments) may be considered in lieu of the techniques specified in item (d).</i></p>			
<p>Preventive Measures III</p>	<p>FOLLOW PREVENTIVE MEASURES(I)& (II) IN ADDITION TO THE FOLLOWING:</p> <p><u>DUST CONTROL</u></p> <p>(a) erect an impermeable dust barrier, from the floor to the underside of the deck (including the areas above false ceilings) consisting of 2 layers of 0.15mm (6mil) fire-retardant poly (or an equivalent barrier) and wallboard protection approved by the multidisciplinary team. The dust barrier shall remain in place until the project is complete and the area has been cleaned thoroughly and inspected. After the Work has been completed, the dust barrier shall be removed carefully to minimize spreading of dust and debris particles adhering to the barrier.</p> <p>(b) use impermeable vessels to contain contaminants. The vessels are to be constructed of a one-piece exterior shell of a minimum of 8mil fire- retardant poly and have ports through which HEPA- filtered vacuum cleaners or air units can be easily attached to draw the unit under negative pressure.</p> <p>(c) vacuum mechanical and electrical systems and spaces above drop or false ceilings, if necessary; and</p> <p>(d) remove (or put on) protective clothing before entering patient care areas.</p> <p>(e) seal gaps and air leakage paths between construction area and adjacent areas.</p> <p>(f) seal windows, doors, and air intake and exhaust vents adjacent to construction areas, especially around buildings to be demolished.</p> <p>(g) seal off areas housing patients who are most susceptible to infections from the construction area.</p> <p>(h) run exhaust fans after the completion of construction to remove 99.9% of airborne contaminants.</p> <p>(i) maintain the negative pressure differential from all adjacent occupied areas into the construction area at 7.5 Pascals (0.03 inches) water column.</p> <p><u>DEBRIS AND CLEAN UP</u></p> <p>(a) place debris in covered containers or cover with a moistened sheet before transporting it</p>	<p>√</p>	<p><u>VENTILATION SYSTEMS</u></p> <p>(a) disable the ventilation system and seal duct openings in the construction area until the project is completed;</p> <p>(b) maintain negative pressure within the construction area by using portable HEPA filter-equipped air filtration units that include pressure gauges and an alarm. Filters shall be monitored and replaced if clogged or functioning below the manufacturer’s specifications;</p> <p>(c) ensure air is exhausted directly outside and away from intake vents and filtered through a HEPA filter. If this is not possible, air may be recirculated in accordance with CSA Clauses 6.6 and 7.2.3.6</p> <p>(d) ensure the ventilation system is functioning properly and is cleaned if contaminated by soil or dust after the construction project is complete.</p> <p>(e) Work area air shall not be discharged to areas occupied by Population Risk Group 3 or 4. Measures to reticulate air shall require approval from the multidisciplinary team;</p> <p>(f) The relative space pressures between area occupied by Population Risk Group 3 or 4 shall be continuously monitored and alarmed and documented in Appendix C, Differential Pressure Record;</p> <p>(g) Where failure of either the portable negative air unit or the exhaust fan would compromise the relative pressurization of a Population Risk Group 4 area, the systems shall be interlocked.</p> <p><i>*Adaptations to negative air pressure within the construction zone MUST be approved by Infection Prevention and Control personnel</i></p> <p><u>Portable HEPA-filtered Air Units</u></p> <p>(a) Air exhausted from construction areas shall be HEPA filters shall be visually inspected and documented by the constructor at least daily.</p> <p>(b) Filters shall be replaced when loaded.</p> <p>(c) HEPA-filtered air units shall be certified at the beginning of Work and at least every 12 months and shall be documented.</p>	<p>√</p>



	<ul style="list-style-type: none"> for disposal. (b) clean area with a HEPA filter-equipped vacuum cleaner, a wet mop, or both, as necessary (c) place supplies and equipment in covered containers during transportation through the health care facility (d) remove debris in the evening when patients are in their rooms and visitors have left. If this is not possible, debris should be removed at the end of the workday. 			
Preventive Measure IV	<p>FOLLOW PREVENTIVE MEASURES (I) (II) &(III) IN ADDITION TO THE FOLLOWING:</p> <p>DUST CONTROL</p> <ul style="list-style-type: none"> (a) ensure that all access shall be from outside the occupied areas of the facility, or construct anterooms at access points to the construction area if access is from within the health care facility; (b) place a walk-off mat outside and inside the anteroom trap dust from equipment, debris, and the shoes. 	√	<p>DUST CONTROL (continued)</p> <ul style="list-style-type: none"> (c) all persons leave the area through the anteroom and are vacuumed with a HEPA filter-equipped vacuum cleaner before leaving and/or wear protective clothing that is to be removed each time they leave the construction area and/or before going into patient care areas; (d) repair holes in walls within 8 h, seal them temporarily asap. (e) ensure that ventilation systems are working properly in adjacent areas; and (f) carefully remove barrier walls and use short term protection to minimize environmental contamination during removal. 	√

Additional Requirements (if any):

For more detailed information, please refer to: CAN/ CSA standard Z317.13-07: Infection Control during Construction or Renovation of Health Care Facilities.

_____ Date: _____
 Facility Management or Capital Planning Representative mm/ dd / yy

_____ Date: _____
 Infection Control Professional mm/ dd / yy

_____ Date: _____
 Manager / Designate mm/ dd / yy



Appendix C
Differential Pressure Record

Location of Work: _____

Record Readings Every: _____

Date	Time	Manometer \ Magnehelic Reading	Construction Activity	Corrective Action	Signature



NOTE: Pressure differential between hospital and construction zone shall be maintained at a minimum of negative 7.5 Pascals (0.03 inches water column).

Appendix D Construction, Renovation and Maintenance Resources

1. Canadian Health Care Facilities, Standard Z8000.-11. (2011, First Edition) Canadian Standards Association.
2. Construction Related Nosocomial Infections in Patients in Health Care Facilities. (2001) Health Canada. Available at: <http://dsp-psd.pwgsc.gc.ca/Collection/H12-21-3-27-2E.pdf>.
3. Guidelines for Design and Construction of Health Care Facilities. (2010 Edition) The Facility Guidelines Institute. Available at: <http://www.fgiguilines.org/2010guidelines.html>
4. Infection Control During Construction, Renovation, and Maintenance of Health Care Facilities, CSA-Z317.13-07. (2007) Canadian Standards Association.

[Return to Table of Contents](#)