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COVID-19: Repurposed Buildings

During these unprecedented times, it may be necessary or advantageous to convert underused public or private buildings such as hotels, malls, dormitories, community centres, arenas, convention facilities, churches, and vacant spaces in office buildings, etc., into healthcare facilities or support for healthcare services. This may include converting facilities for treating non-critical patients, testing and screening facilities, or residences for frontline healthcare workers.

The following guidelines are provided as general advice that building owners and property managers can use to develop a site-specific plan to prevent or mitigate hazards for a repurposed building.

- Develop visitor/contractor screening policies and protective guidelines while onsite. Advise visitors/contractors what PPE they are expected to wear and provide by building operator where necessary.

Communications

- Discuss plans with local authorities to fully define the intended use of the building, including building permits, zoning bylaws, accessibility requirements, environmental approvals/permits, etc.
- Review plans with local building officials and maintenance, qualified engineers, infection prevention specialists, and/or board-certified healthcare architects to determine the gaps between required and existing building design. Develop a plan to address those gaps.
- **Inform your insurance company that your building will be repurposed and what it will be used for. Provide as much detail as you can about the intended use and precautions you are taking to reduce and mitigate risk. Seek indemnification or hold harmless clauses from local government or health authority, where applicable, for the emergency use of the site during this time. Review your insurance policies to ensure your site will remain covered.**
- Post signage at vehicle and pedestrian access points that the building is now being used for a different purpose to prevent the public from accessing it for its old use. Provide clear directions for new users and service providers to access the site. Clearly identify truck access routes to prevent damage to buildings/infrastructure and traffic congestion from large vehicles unable to navigate small roads.
- Post signage at entrances and inside the building reminding occupants to adhere to physical distancing requirements from public health authorities and best practices for good hygiene.
- Advise life safety and equipment maintenance service providers that you still require their services and confirm that they are still operational. Verify emergency contact information.

Building features

- Consider building features such as room size and heights, width of hallways, size of elevators, door openings, dock facilities, etc. to ensure that the basic features of the building can be used as intended.
- Other considerations: Can the roof structure accommodate additional mechanical and emergency power systems; are floors level; condition of the building envelope (is structure watertight, well-insulated and devoid of mould or asbestos); etc.?
- Facility communication equipment, if installed, should be confirmed operational.
- Temporary construction, including tent structures and fabric partitions, should still meet all building and life safety code requirements.
- If temporary services such as power, gas, compressed air, or plumbing are required they should be installed by qualified technicians. Temporary cables, hoses, and pipes should be run overhead (preferably) or on the floor with suitable floor guards to prevent damage to the equipment and minimize tripping hazards. Pipes should be properly WHMIS/GHS labelled. They should not be run through fire door openings, and penetrations through fire walls should be sealed with a listed fire-stop material.
- Update the critical equipment, spares and parts inventory to ensure parts and services required to maintain the facility are readily available.

Site utilities

- Review basic utility infrastructure (electricity, HVAC, natural gas, water, sanitary and sewage disposal, etc.) to ensure that there is adequate capacity to accommodate expected loads.
- Review specific needs to determine what temporary or permanent additions need to be made to facilitate intended delivery of services.
- Determine emergency power requirements and arrange for a connected standby generator or a quick-connect generator as needed. Maintain an up-to-date list of fuel supply providers.
- Technology, secure communications, and data systems, etc. needs must be considered at each location.
- Review safe work procedures such as hot work permits, confined space entry, and lock-out/tag-out to determine if any revisions are needed. There may be new equipment that creates a new confined space or new area where hot work should be prohibited.

Materials

- Maintain housekeeping in good order.
- Hazardous materials should be stored in a secure area in accordance with local code requirements (flammable liquids in listed ventilated cabinets, oxygen separated from combustibles, locked cages for compressed gas cylinders outdoors, etc.).
- Supplies should be stored in secured rooms while maintaining suitable clearance from sprinklers and detectors. Paths of egress should be maintained clear.
- Provide proper equipment and containers for safe disposal of waste materials from new operations. Ensure local bylaws are followed.
- Construction and demolition debris should be source separated and where provincially regulated, divert the wastes to recycling or reuse depots, instead of disposal at a landfill.

Emergency planning and response

- Consider evacuation procedures for the new occupancy, recognizing that occupants may require assistance to evacuate. Review emergency response plans and assigned responsibilities. Consider new hazards and exposures created by repurposing the building.
- Review life safety and emergency egress requirements for the new building purpose versus what is provided in existing building. Recovering patients who are incapable of self-preservation require special features not provided in most buildings.
- If members of the response team become incapacitated by contracting the disease or for any other reason, assign their responsibilities to active personnel.
- In wildfire-prone areas, review new structure and outdoor storage to ensure its exposure to wildfire is minimized and it does not create a path for the wildfire to reach the building.
- Avoid flood-prone areas and locate temporary structures on high ground.
- In earthquake-prone areas, brace new equipment. Provide seismic shutoff valves on new natural gas or propane lines. Provide flexible connections for new pipeline and water tank joints.

Other

- After the building has been repurposed and/or taken over by the hospital or local government, ensure your employees who may be required to continue working at the building (i.e. front desk, cleaning, maintenance, etc.) have updated health and safety duties and responsibilities assigned and are properly trained in new functions of the building.
- Install hand sanitizer and/or hand washing stations to help occupants comply with best practices for good hygiene.
- Address any potential security risks due to the location, building orientation, or site configuration.
- Would neighbours pose potential noise, traffic or other issues?
- Consider using modular building components, converting over-the-road trailers or cargo shipping containers placed in abandoned parking lots for the basic shelter.
- Check if commercial cooking equipment ventilation hoods and exhaust ducts need to be inspected and cleaned more often due to increased usage.
- Ensure the safe storage of foods (hygiene controls, no cross-contamination, temperature, humidity levels, “first in – first out” rule, etc.). For increased food storage, consider using refrigerated trailers.
- Where necessary, ensure employees of the private buildings, are not in direct contact with the patients, who should only be handled by the hospital’s medical staff.
- High value materials, drugs, and other attractive items should be stored in locked rooms in accordance with federal and provincial laws.
- Develop plans for secure transportation of medicines, supplies, and medical devices.
- Establish access restrictions to at least four differentiated levels: restricted, semi-restricted, minor restricted, and open. This will assist with identifying areas retained by the owner, limited to staff of the “operator”, transitional spaces, and ones open to the short-term tenants.
- Consider having isolation areas if you expect to provide services to persons with mental or physical loss of capacity (i.e. severe mental illness, addiction withdrawal, etc.). Secure or remove equipment and objects, that may pose a risk to persons or the facility.
- If used clothing or bedding is being provided to the repurposed building, ensure it was laundered prior to being received.
- Where the existing laundry equipment will be used in the repurposed building, ensure it meets the cleaning requirements for the new occupancy.

All repurposed buildings have different hazards and exposures. In each case, risk control measures should be implemented to address those specific risks. For further assistance, please contact your Aon account engineer or account executive.

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