

Our world is changing fast. And we're ready.

PROJECTS

Advocate Aurora Health

Tented/Modular Pandemic Response Illinois/Wisconsin

**Continuing work*

- 26 Surge Tent sites designed and constructed for forward triage
- Flexible to meet surge needs as they increase
- Equipped with necessary infrastructure
- Supporting trailers included for data racks and supplies

New York Surge Relief

Modular ICU Surge Units Brooklyn, New York/Mineola, New York

**Continuing work*

- Planning and design for 20-patient ICU Surge Units and central support core for prefabrication and rapid construction at three locations.
- Working directly with modular fabricator and construction manager

London Health Sciences Centre

LHSC Field Hospital London, Canada

- 144-bed temporary care facility
- Materiality consistent with infection control
- Constructed using prefabricated divider panels
- Additional space available for expansion if needed

Intermountain Healthcare

Emergency Preparedness Unit Murray, Utah

- Fully-equipped to handle highly-infectious diseases
- Separate patient corridor to reach exam rooms and staff-only centrally-located work area
- Separate exam room doors for patient and staff access
- Material selection based upon cleanability of surfaces
- BSL-3 Lab

HIGHLY INFECTIOUS DISEASE EMERGENCY RESPONSE STRATEGY

How We Can Assist Our Healthcare Clients Right Now

Healthcare professionals are on the frontlines caring for patients during the COVID-19 pandemic, while simultaneously trying to navigate the uncertainty of what the future holds for staff, patient populations, and facilities.

We're here to help. We've assembled a task force of global healthcare design experts and can provide immediate assistance in the areas below and change people's lives.

EMERGENCY PLANNING & OPERATIONS

- Our medical planners and designers are familiar with healthcare crisis management and bed capacity increase for surge flexibility.
- Alternative sites of care are a clear option. We can help conduct building assessments to make decisions on new sites of care.
- Our researchers are currently focused on crisis response outcome measurements and best practices for containment of patients with an infectious disease.
- Our operations planning teams are currently helping clients implement strategies for the most efficient operations at sites of care and to rethink their processes to enable the safest environment for patients, staff and the public.

EMERGENCY TESTING CONSIDERATIONS

Our planners and designers can assist with the following modular testing solutions:

- **Drive-through Testing:** Tests many people quickly and reduces social contact.
- **Walk-up "Booth" Testing:** Patients enter booths that are separated from a protected, negative pressure clinical workspace with attached lab.
- **Screening Clinic:** Tented facility for testing and treatment before entering the medical facility. Relocates triage near emergency department and physically separates patients showing symptoms.

MODULAR FIELD HOSPITALS

- Our designers have created plans for field hospitals comprised of isolated patient beds fabricated from shipping containers and deployed at hospital sites.
- Our medical planners have developed modular, tented and built environments for surge relief.
- We can help with master-planning for patient-throughput for newly founded operations.
- Our master planners can help coordinate the care site for emergency vehicle circulation/transport, site utilities and service.

PROJECTS

Westmead Hospital Redevelopment New South Wales Biocontainment Unit Sydney, Australia

- Fully-equipped to handle highly-infectious diseases
- Separate patient corridor to reach exam rooms and staff-only centrally-located work area
- Separate exam room doors for patient and staff access
- Dedicated elevator from emergency department
- Physical Containment Level 4 Lab

Humber River Hospital Pandemic Response Plan Toronto, Canada

- Over 80 negative-pressure conversion-ready rooms, 36 in the emergency department
- Parking garage equipped to convert to pandemic centre in case of emergency. Outfitting for decontamination showers and water containment units.

ENHANCED TELEHEALTH CAPABILITIES

- Telehealth can assist with providing safe care in the appropriate setting, often reducing non-emergent visits to increase emergency department capacity. Virtual visits can also be provided to assist with a rapid, safe discharge to provide increased inpatient bed capacity. We have experience in this area and are available to assist.
- We also have experience with hospital command centers, and can assist in establishing a Regional Network Incident Command Center.

ENVIRONMENTAL & ENGINEERING MEASURES

- Our engineers can help you evaluate MEP systems, accommodating failure scenarios, filtration and directional airflow.
- Consultation rooms should be negative pressure and equipped with HEPA filtration systems with at least 12 air changes per hour (ACH). They should also be equipped for hand hygiene with proper waste receptacles.
- Waiting areas for consultation should be in an open-air setting with at least two meters distance between patients. Separate placement of symptomatic and asymptomatic patients is critical.

CONTAINMENT SPACE FOR PPE

- Our designers and planners have designed biocontainment units for highly-infectious disease treatment and can assist with temporary solutions that employ the same strategies.
- Within these containment environments, it is important to include anterooms and containment-level space for donning and doffing of personal protection equipment (PPE) to protect medical personnel. We can help designate the proper areas for maximum safety.

LABORATORIES/EXPANDING LAB SPACE FOR TESTING

- Our laboratory designers and planners have experience in designing units up to biocontainment safety level 4 (BSL-4).
- We can help in planning laboratories to make use of automated/high-throughput equipment to conduct testing at a higher volume.
- If possible, it can help to repurpose laboratory support rooms for testing and use mobile lab trailers on site (does not require special HVAC). Our lab planners can assist in the design of mobile testing units.

