

Guidelines for the Safe Shutdown of Construction Sites During A Pandemic or Other Crisis

Given the current COVID-19 pandemic or other local crisis could and in some cases is resulting in construction sites being shut down indefinitely, Construction Risk Partners is offering the following guideline for safely shutting down and securing a site until restarting work activities.

As with any site shutdown or a site with limited supervision, it is important to consider the worst-case scenarios regarding inclement weather, unauthorized intruders, public interface, and changes as the crisis evolves and emergent issues present. Responding to site issues during shutdown requires vigilant and periodic monitoring of site conditions and local community concerns.

Shutting down a site is not about abandoning a site. A system for periodic monitoring of closed sites should be put in place. Consider a skeleton crew of essential personal, where allowed. Likewise, each site should consider if 3rd party security may be necessary, fulltime or partial, during the shutdown if not already mandated by local law and/or not restricted by emergency orders.

Lastly, shutdown periods are the perfect time to plan for the safe and efficient remobilization when sites are eventually cleared for re-opening.

Prior to shutting down, consider the following general, required and emergent considerations to ensure your sites are safe while idle:

General Health & Safety Shutdown Considerations:

Housekeeping and Inclement Weather

- Pathways and walkways both on and off the site should be free from mud, debris and materials that could obstruct or cause injury
- Trash receptacles should be emptied and secured
- All cords, leads and hoses should be coiled, removed from floors and secured
- Materials including tarpaulins, plastic and cardboard packaging that could be blown offsite by wind should be fastened down or removed from site
- Plan to have full skips emptied or removed from site
- Remove any debris or material that may become airborne due to wind or inclement weather
- Inspect/secure all perimeter vertical guardrail/debris netting systems at the edge of multifloored buildings
- Check temporary structures are stable and able to withstand inclement weather conditions. In the case of all cranes, follow all manufacturer recommendations for shut down
- All water taps are closed, and water flow turned off unless needed to maintain critical equipment. Heat tracing should be in place to prevent freezing. Flow alarms installed where needed to protect critical infrastructure
- Any work that involves hazardous waste or other legacy containments (lead, asbestos, PCB, VOCs, etc.) should be isolated, secured and protected from the elements. Maintenance of any critical barriers is essential. On-site material storage should not exceed regulatory limits.

Equipment

- All equipment should be locked in secure containers or in buildings
- Plant and machinery should be removed from site or at the very least isolated, keys removed, locked out (where feasible) and made safe
- Follow all manufacturer recommendations for shutting down equipment
- Lower all masts, booms or other elevated equipment as would be required by law
- Follow local fire code relative to the maintaining readiness of construction hoists & elevators for use by local fire departments/EMS

Scaffolding and Sidewalk Sheds/Bridges

- All scaffolding should be inspected and made safe
- Remove unfixed access ladders
- Complete or close off incomplete scaffold sections
- Remove all material and tools from scaffold platforms
- It may be necessary to have inspections of scaffolds and sidewalk sheds/bridges on a periodic basis and in the event of high winds, other weather events or incidents where structural stability is potentially compromised – especially in areas in proximity to public interface (see below Security and Public Interface)

Superstructure and Civil Works

- All formwork and re-shores shall be removed, provided concrete has reached its design strength. If re-shores are to remain, they shall be periodically inspected
- Perimeter re-shores shall be tied back as per local regulatory agencies and/or department.
- All steel members secured by a minimum of 2 bolts per connections or greater as determined by the steel erection engineer.
- Ensure all metal decking is secured.

- All material such as bolts, shear studs, welding material, gas tanks, and other consumable secure away from exterior and interior building edges.
- Ensure all working decks are cleaned at the end of every workday.
- All equipment such as compressors, generators, crabs, lifts secured away from exterior and interior building edges.
- Where feasible, excavations should be made safe by backfilling or covering over. Where not feasible, edge protection should be installed.
- Un-shored earth cuts shall be sloped or benched to an effective stable angle of repose of 45 degrees or flatter and stabilized to prevent erosion.
- Soil shall be sloped away from adjoining structures, lots, and public sidewalk, for proper drainage.
- Conduct all required inspections of shoring, underpinning or other cave-in prevention equipment to ensure there is no obvious risk of the excavation collapsing or impact to adjacent structures
- Any exposed underground utilities must be protected and labeled. Notification should be made to utilities as to the status of the work as needed

Fall Protection

- All ladders should be removed and stored
- Hole covers must be secured, labeled and in place
- Elevator and MEP shaft protection must be secured and in place
- All other guardrails systems, vertical netting, horizontal netting floor, wall, and roof openings protection shall be in place and secure

Fire Prevention and Fire Risk

- Do not block any entrances with equipment – maintain access for emergency response personnel & equipment
- Maintain and assure separation of oxygen and fuel gas in secured, upright, storage facilities with caps in place, regulators removed and valves in the closed/off position
- All potential heat or ignition sources such as portable heaters, electrical systems, cords, cord sets are removed or isolated if necessary.
- Portable flammable liquid containers shall be returned to appropriate storage cabinets and on-site storage of flammable and combustible liquids and gases shall be maintained at or below approved quantity levels
- Standpipe and Siamese connections shall be free of obstructions, accessible to fire departments and maintained in a state of readiness

Security and Public Interface

- Check the perimeter, computers and other valuables from the site or put in secure storage
- Lock up all tool and equipment in containers and gang boxes
- All essential utilities to the site maintenance shall be maintained. Non-essentials should be shut down
- Ensure public sidewalks are maintained safely in accordance with federal, state and local governmental authorities, free of ice, snow, grease, debris, tripping hazards, etc.
- All traffic control protection shall remain in a state of readiness unless directed by local DOT to remove
- Temporary lighting shall remain illuminated
- Consider remote video monitoring and/or security patrols in high-risk areas
- Post emergency/after-hours contact information in a conspicuous place
- Consider third-party access requirements (utility, fire/EMS, code officials, etc.)

- All required temporary or permanent egress shall be confirmed clear and unobstructed.
- All required temporary or permanent exit signs and exit illumination sign shall be operating/maintained prior to closure
- Check all gates
- Lock up all entrance points
- For any essential personnel required to remain on site (security, critical equipment maintenance, etc.), depending on the size of the site, consider using the buddy system with communication protocol
- Consistent with existing mutual aid agreements, notify local emergency personnel (fire, police, rescue) that the site will be inactive and, if possible, provide a copy of the Emergency Action Plan and site maps, should they need to access a site in an emergency

Documentation

Consider documenting the following:

- The order to close / postpone operations and the basis for it
- The distance of known incidents (proximity of any infection sites to insured property)
- Any actual infected or potentially infected visitors at the project site
- Shutdown duration
- A snapshot of your schedule / status of work at time of shutdown
- Clear assessment of work in place (with photos) at the time of shutdown
- If there were prior project delays due to unrelated causes, preserve clear documentation of the time period associated with that delay
- All expenses incurred (clean-up costs, etc.) as a result of shutdown and events leading up to
- All time expended on COVID-19 related issues (who, what, where, when, etc.) including the nature of the work
- Reach out to your CRP account manager or claims representative if you believe you sustained a loss or would like assistance presenting a claim

Any shutdown procedures should incorporate a final site walk through in the lead up to the last day to ensure all considerations have been met. Where feasible and mandated by law, periodic inspections for critical equipment/infrastructure, maintenance and structures should continue.

As always, comply with all applicable health & safety requirement during the execution of all work.

Be well and stay safe!