



## Commercial Series

# PROTECT YOUR CONSTRUCTION SITE FROM SEVERE WEATHER: PLAN. PREPARE. ACT.

Construction sites, both occupied and unoccupied, are extremely susceptible to losses when exposed to severe weather such as hurricanes, strong thunderstorms, winter storms, and floods. Severe weather in all seasons can erode, wash, or blow away dirt and sand; cause unsecured equipment and materials to become damaging projectiles; and harm or tip expensive equipment and unfinished construction work. While these and other scenarios may be unavoidable, losses can be reduced through proper planning and preventative action. The construction site management team—which may include general contractors, construction managers, and safety managers—must understand and be able to identify weather-related hazard risks on the site so they can create and implement an effective emergency prep and response plan. The information below, along with [IBHS' EZ-PREP](#), will help identify these specific risks.



*Construction sites are extremely vulnerable to severe weather if proper precautions are not taken. However, implementing a preparedness and response plan can significantly reduce risks.*

## ALL WEATHER

Assign someone to monitor short and long-term weather conditions. Pay attention to weather advisories, especially wind advisories, as weather conditions can rapidly deteriorate. Have a plan in place to allow for a quick response.

## WIND

Address the effects of high winds and potential windborne debris in any severe weather emergency plan as high winds can happen throughout the country.

- Properly store and secure loose construction materials and equipment on the job site. Unsecured materials, when subjected to high winds, could become projectiles, causing damage to the site or surrounding businesses. This is especially important for sites located in densely populated areas as job site materials could impact surrounding businesses or homes.
- Adequately brace framing and anchor walls to the frame work as soon as it is constructed. High winds can cause costly damage to unbraced structures.
- Secure or brace all masonry and structural steel by the end of each day.
- Follow crane and other machinery manufacturer guidelines for proper operation and storage. Never operate this equipment during a weather event.
- Make sure all site signage is properly secured.
- Cover loose materials such as sand and top soil with a securely anchored tarp or spray with water to prevent erosion.



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The IBHS EZ-PREP guide includes best practices to be taken before, during and after severe weather emergencies, including site-specific actions the construction site management team can take to prevent or reduce damage.

[DISASTERSAFETY.ORG/EZ-PREP](https://disastersafety.org/ez-prep)

## WIND-DRIVEN RAIN, FLOODS, WATER INTRUSION TESTING

Understand the site's exposure to flood. Is it located in a flood zone? Is it prone to storm water runoff and/or flash flooding? If yes, create a flood emergency response plan.

- ✓ Install and maintain permanent and temporary drainage systems on site. All systems should be free of debris that could inhibit proper site drainage.
- ✓ Before conducting building envelope water intrusion tests, or installing interior finishes, ensure the envelope is properly sealed and there are no visible signs of cracks, gaps or holes. Wind-driven rain or a failed water intrusion test can lead to extensive and costly interior water damage.



Heavy rain can cause issues at a construction site, particularly if located in a flood zone. Create a flood emergency plan if prone to flooding and/or storm water runoff.



*In any weather emergency, if job site conditions are not safe, DO NOT continue daily operations until it is safe to do so.*

IBHS is a nonprofit applied research and communications organization dedicated to reducing property losses due to natural and man-made disasters by building stronger, more resilient communities.

## WINTER WEATHER

For locations exposed to snow and freezing temperatures, incorporate a winter weather plan into severe weather planning.

- ✓ Hire a contractor to clear all pathways of snow and ice, and to apply sand or salt as soon as possible on the construction site.
- ✓ If necessary, hire a contractor to remove excess snow from floor slabs or roofs to avoid overloading structural components.
- ✓ Follow manufacturer guidelines for weather-specific installation details. If necessary, stop construction due to unfavorable conditions.
- ✓ If wet sprinklers are installed, monitor temperatures to avoid freezing. If permitted by the local municipality, anti-freeze can be added to the system by a fire sprinkler professional in some circumstances.



Does your construction site have severe winter weather risks? If so, it's important to prepare for freezing temperatures and heavy snow/ice.

## CONCLUSION

With any construction site, unforeseen emergencies can happen due to weather-related events. With the proper planning and mitigation tools outlined here, reducing the risks and managing emergencies can be successful. Plan, prepare and act.

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