



Hosted by: **Michigan Catholic Conference**

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Preparing for Winter Weather Property Hazards

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Remember when snow was fun?



Agenda

- **What Can Go Wrong?**

- **Roof Issues**
- **Frozen Pipes**
- **Power Failure**
- **Property Fires**



- **What you can do to limit damage**

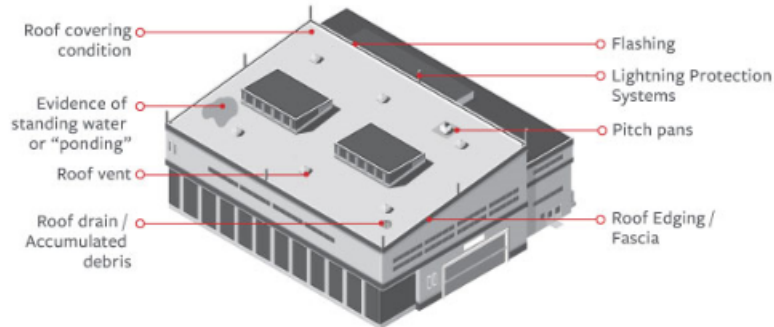


What Can Go Wrong?

Is Roof Ready for Winter?

ROOF MAINTENANCE

Some Elements to Include in an Inspection

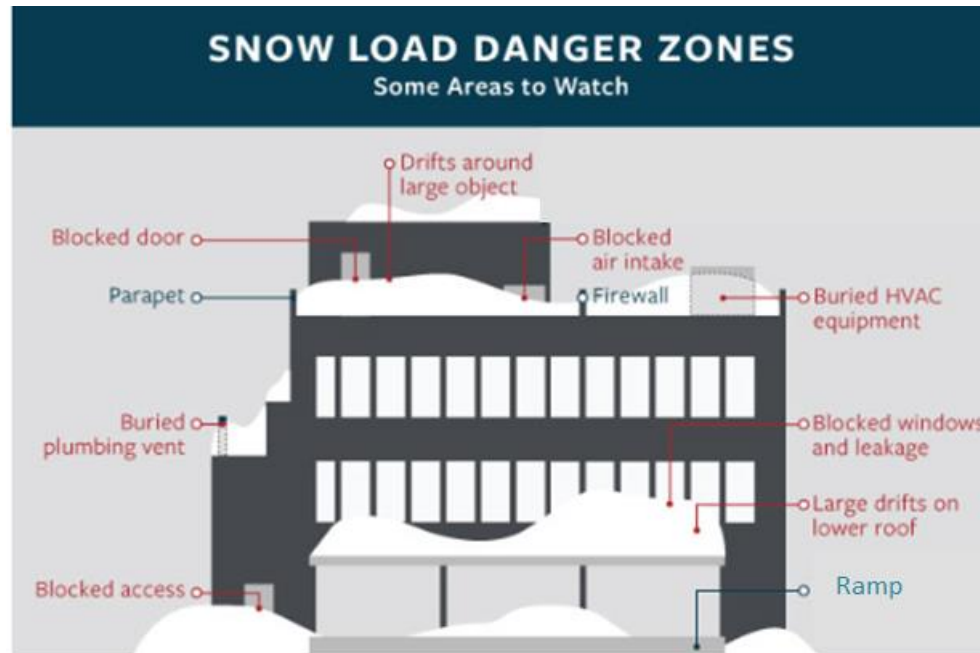


A comprehensive roof maintenance program should include, at minimum, the following basic steps:

- Keep roofs clean and free of debris
- Keep drainage systems clear and functional
- Eliminate / make repairs to areas with standing water or "ponding"
- Train maintenance personnel on roof construction and related ongoing maintenance needs
- Restrict roof access to authorized personnel only
- Limit penetrations of the roof system
- Monitor sloped roofs with overhangs for the creation of ice dams and add insulation to the attic as necessary

What Can Go Wrong?

Too Much Snow?



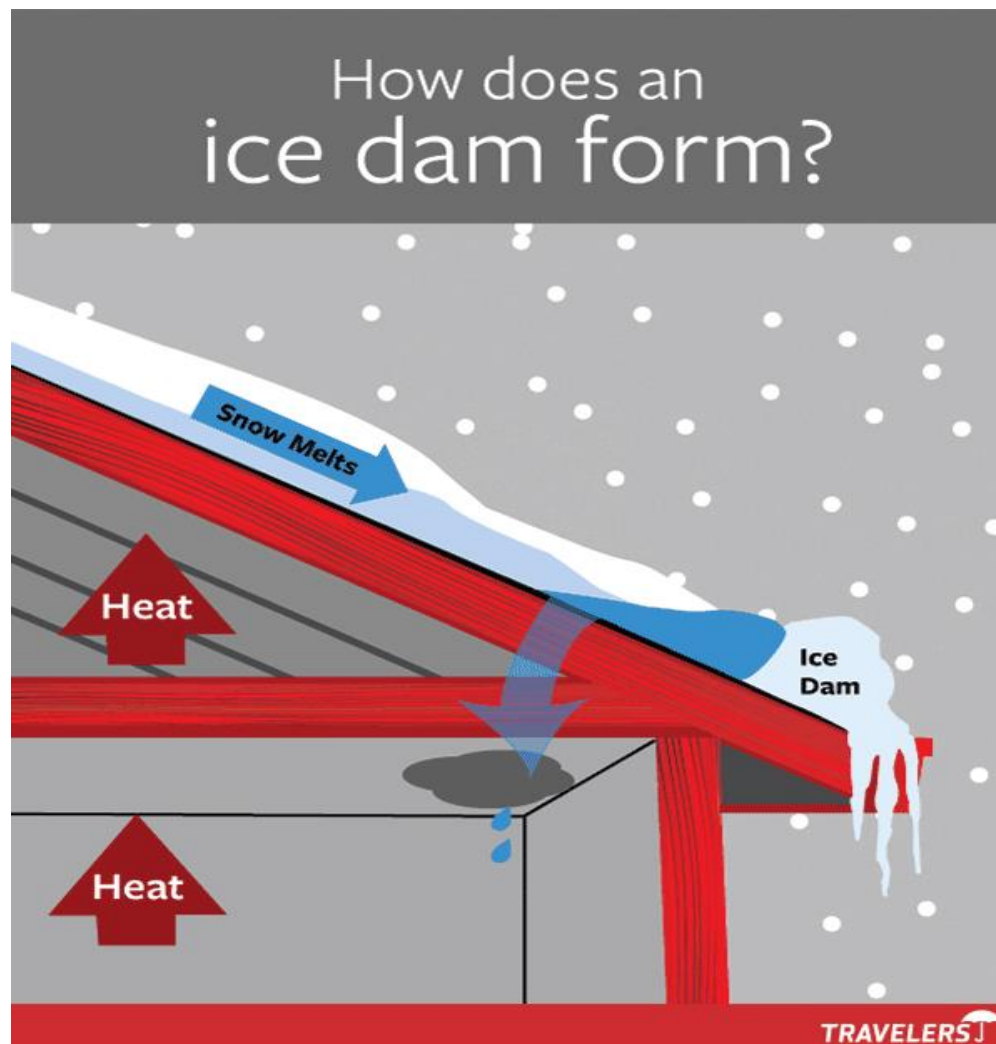
What Can Go Wrong?

Roof Collapse



What Can Go Wrong?

Do you have a sloped roof?



What you can do:

Sample Roof Inspection Checklist

Roof Area: _____
 Inspector: _____

1. Supporting Structures:

- Exterior and Interior Walls
 Expansion/Contraction _____
 Settlement Cracks _____
 Deterioration _____
 Moisture Stains _____
 Physical Damage _____
 Comments: _____
- Exterior and Interior Roof
 Securement _____
 Expansion/Contraction _____
 Structural Deterioration _____
 Water Stains _____
 Physical Damage _____
 Attachment of Felts/Insulation _____
 New Equipment/Alterations _____
 Comments: _____

2. Roof Condition:

- General Appearance
 Debris _____
 Drainage _____
 Physical Damage _____
 General Condition _____
 New Equipment _____
 Comments: _____
- Surface Condition
 Bare Spots in Ballast _____
 Cracking/Splitting _____
 Contamination _____
 Comments: _____
- Membrane Condition
 Blistering _____
 Splitting _____
 Ridging _____
 Unwelded Laps _____
 Punctures/Slices _____
 Adhesion to Substrate _____
 Fasteners _____
 Comments: _____

3. Flashing Condition:

- Base Flashing
 Punctures _____
 Deterioration _____
 Open Laps _____
 Attachment _____
 Ridging or Wrinkling _____
 Comments: _____
- Counter Flashing
 Open Laps _____
 Punctures _____
 Attachment _____
 Rusting _____
 Fasteners _____
 Caulking _____
 Comments: _____
- Coping
 Open Fractures _____
 Punctures _____
 Attachment _____
 Rusting _____
 Drainage _____
 Fasteners _____
 Caulking _____
 Comments: _____

4. Roof Edging/Fascia:

- Splitting _____
 Securement _____
 Rusting _____
 Fasteners _____
 Punctures _____
 Comments: _____

5. Roof Penetrations:

- Equipment Base Flashing
 Open Laps _____
 Punctures _____
 Attachments/Fasteners _____
 Comments: _____
- Equipment Housing
 Counter Flashing _____
 Open Seams _____
 Physical Damage _____
 Caulking _____
 Drainage _____
 Comments: _____

What Can Go Wrong?

Frozen Water Pipes



- How do you Prevent Pipes From Freezing?
- Which Pipes are at Risk?

What you can do:



What you can do:

Tips to Minimize Risks of Frozen Pipes

- Water Piping
- Fire Protection Sprinklers

TIPS TO HELP MINIMIZE THE RISKS OF FROZEN PIPES

Fit pipes that are vulnerable to occasional freezing temperatures with insulation sleeves or wrapping.

Provide approved heat tracing with insulation for water-filled pipes.

Drain any piping that is not required during the winter months.

Maintain a minimum temperature of 40 F in key building areas.

What you can do:

Remember Unheated Crawl Spaces and Concealed Spaces

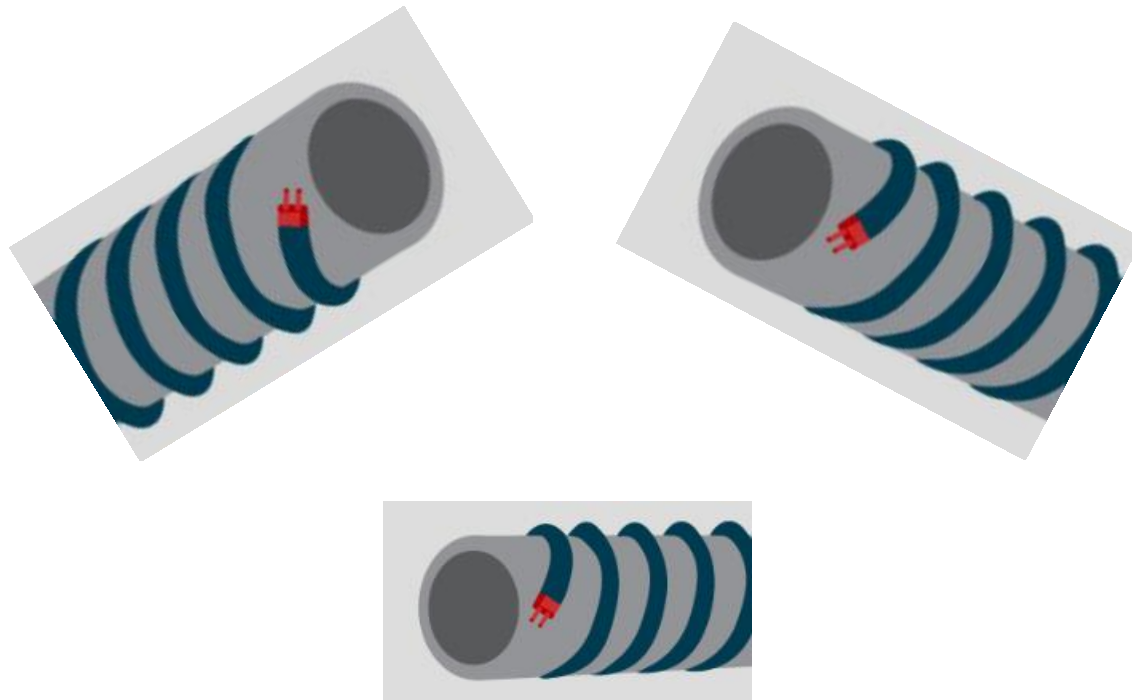


What you can do: Maintain 40 degrees+

- Insulate your buildings
- Evaluate the building envelope
- Add weather stripping around doors and caulk windows to guard against drafts and heat loss.



What can you do: Why and When to use Heat Tape?



What Can Go Wrong?

Why should you be concerned about Hot Works?



What can you do: Hot Work Permit System

PERMIT FOR CUTTING AND WELDING IMPORTANT – Follow precautions indicated *	DANGER PRECAUTIONS TO PREVENT FIRES  DO NOT CUT OR WELD UNTIL THE FOLLOWING PRECAUTIONS HAVE BEEN TAKEN
Building: _____ Permit Issue Date: _____ Dept./Area: _____ Floor: _____ Work to be done: _____	Check each item below: <input type="checkbox"/> The work area was personally examined. <input type="checkbox"/> Sprinkler system is in operation. <input type="checkbox"/> There are no flammable liquids or un-purged tanks in the area. <input type="checkbox"/> The job will be confined to the area described on permit. <input type="checkbox"/> Floors are clean. <input type="checkbox"/> All combustibles have been located 35 feet from the job area and/or protected. <input type="checkbox"/> All floor and walls openings within 35 feet have been covered tightly. <input type="checkbox"/> Fire watchers have been assigned to the area and know how to give alarm. <input type="checkbox"/> Ample extinguishing equipment for immediate use has been provided. <input type="checkbox"/> All cutting & welding equipment was found to be in good repair.
Permit Expires: _____ Operator Name: _____ Assigned Fire Watch Name: _____	
Signed by: _____ <i>(Individual responsible for authorizing welding and cutting)</i> Title: _____	
Time Started: _____ Completed: _____	
<i>* Complete this Hotwork Permit (by tabbing through each highlighted area and typing in each field) including having the precautions followed, signed by someone in authority and hang this permit in the vicinity of the hotwork operation. Areas not highlighted are intended to be completed on-site using pen. Once the hotwork is completed and the area observed and signed off as being safe, sign this permit and retain it for review by Travelers Risk Control.</i>	
File for Travelers Risk Control Consultant's Review	FINAL CHECK-UP The work area was observed for at least 30 minutes after work was completed and found fire safe. Signed: _____ Title: _____ Date: _____ Time: _____

What Can Go Wrong?

How about your Fire Protection Systems?



What can you do: Make Sure that Systems are Ready!



Perform regular inspections of fire protection systems including alarms, sprinkler systems and fire extinguishers



What Can Go Wrong?

The Power Goes Out, Now What?



Polling Question

Why is it important to visually inspect Sprinkler System valves?

- To ensure valves are fully open
- To make sure that they are working properly
- To ensure they have proper lubrication
- Check on valve supervision devices
- All of the above



What Can Go Wrong?

During Power Failure, What Happens to Your Fire Alarm System?



What You Can Do:

What does Power Failure mean to You?



What we covered

- Roof Issues
- Frozen Pipes
- Power Failure
- Property Fires



Steps to Take Before Winter Arrives

- Safety Measures
- Trim Trees
- Steps & handrails
- Supplies & equipment



Steps to Take Before Winter Arrives

1. Check all heating systems for proper operation
2. Develop plan to respond to lengthy power failure and loss of heat
3. Maintain safe roof access. Keep roof drains clear & remove excess snow loads from roof.
4. Line up ahead of time licensed contractors to assist with protecting your buildings. This may include: sprinkler contractor, plumbers, electricians, roofers, HVAC, and snow removal companies
5. If for any reason if your fire alarm or fire sprinkler system is impaired follow your impairment procedures and call your local Travelers RCC.

Winter Weather Checklist



By: _____
 Date: _____

Almost every building in North America is subject to severe winter weather, such as blizzard conditions, ice storms and severe cold (Arctic Freeze). This is true not only of facilities located in the central and northern portions of the continent, but also has occurred in areas as far south as Florida and Texas. Indeed, loss histories indicate the areas that are most vulnerable to damage are the southern portions of the country because they are not accustomed to long periods of prolonged cold.

For these reasons, it is important that every facility prepare in advance for the possibility of severe winter weather. The following checklist provides a starting point in developing a comprehensive plan to prevent unnecessary losses that can result from winter weather conditions.

SPRINKLER SYSTEMS	YES	NO*
1. Unattended areas inspected hourly or temperature monitored by central station?		
2. Concealed spaces containing piping provided with adequate heat?		
3. Building heat maintained at or above 40°F for areas protected by wet pipe sprinklers?		
4. Solution strength of anti-freeze systems has been checked?		
5. Dry pipe valve enclosures are adequately heated and monitored?		
6. Dry pipe valves are properly set and proper air pressure maintained in the system?		
7. Dry pipe system air pressure electrically supervised or visually inspected daily?		
8. Dry pipe system auxiliary drains and low point drains have been drained?		
WATER SUPPLIES	YES	NO*
1. Fire pump room heat maintained at 40°F (70°F for diesel engine without heater)?		
2. Diesel drivers provided with water jacket heater to maintain temperature of 120°F?		
3. Fire pumps operated weekly?		
4. Water supply reservoirs heated and monitored to maintain temperature over 40°F?		
5. Gravity tank expansion joints and riser boxing in good condition? Any leaks in tank corrected?		
6. Hydrants, valves and fire department connections are accessible and cleared of snow?		
7. Caps for fire hydrants and fire department connections are in place and operate freely?		
8. Fire hydrants are drained and lubricated? (Date completed: _____)		
9. Control valves are open, lubricated and provided with electronic supervision or locked open?		
10. Valve pits are dry and accessible?		
BUILDING FEATURES	YES	NO*
1. Building heating system repairs or annual maintenance scheduled before cold weather?		
2. Heating equipment, combustion controls and safety devices tested for proper operation?		
3. Windows and doors in good repair and properly weather-sealed?		
4. Gutters, downspouts and roof drains are clear?		
5. Roofs visually inspected for water ponding, structural deficiencies, etc.?		
6. Areas subject to freezing provided with non-freeze type fire extinguishers?		
7. Designated individuals authorized to initiate a winter weather alert?		
8. Procedure for monitoring snow depth on roofs and snow removal action plan established?		
9. List of equipment containing water that is to be drained before cold weather?		
10. List of suppliers for portable boilers and/or heating units developed?		
LIST OTHER FEATURES UNIQUE TO YOUR FACILITY	YES	NO*

Questions?

