



**ROOF OWNER'S  
OPERATION  
AND  
MAINTENANCE  
MANUAL**



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## Table of Contents

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<b><u>Section</u></b>	<b><u>Title</u></b>	<b><u>Page</u></b>
Section 1.0	General Maintenance Statement	2
Section 2.0	Safety	2
Section 3.0	Inspections	2- 4
Section 4.0	Repairs	4
Section 5.0	Foot Traffic	4
Section 6.0	Drainage	4
Section 7.0	Ice and Snow Removal	5
Section 8.0	Additions to Roof	5
Section 9.0	Dissimilar Metals	5
Section 10.0	Paint and Coating	5



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## *Section 1.0 – General Maintenance Statement*

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Your new McElroy Metal roof is designed to provide many years of protection with very little maintenance. However, there is no roof that is immune to severe weather or that is completely maintenance free. To keep your roof performing as it should, a comprehensive maintenance program should be implemented. This manual will inform you of things that need to be accomplished in order to insure your roof is in good condition and that it will continue to meet your expectations through the years.

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## *Section 2.0 - Safety*

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**SAFETY FIRST!!!**

Walking on a metal roof can be dangerous. Safety should always be your number one priority when walking on, inspecting, or performing maintenance on your McElroy Metal roof system. You should always use safety equipment such as fall protection as required by OSHA and other regulatory agencies. Failure to do so could result in serious injury including death. In addition, you may also be subject to citations for non-compliance.

You should always use extreme caution when walking on metal roofs with steep slopes, near roof edges, or on roofs that are wet or covered with ice or snow. You should insure that all personnel are trained in safety procedures and that all safety equipment is in proper working condition.

When walking on a metal roof, inspecting, or performing roof maintenance, always take the following precautions:

- Use fall protection and other safety equipment as required.
- Do not walk on roof flashings such as gutter, rake, hip or ridge flash.
- Do not walk on Light Transmitting Panels (LTP's).
- Guard all LTP's and roof openings.
- Step only in the panel flat directly on or in close proximity to a supporting roof structural.

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## *Section 3.0 – Inspections*

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- Your McElroy Metal Roof should be inspected annually at a minimum, and whenever any of the following occur:
  - After a fire, vandalism or any known damage to the roof or an adjacent roof area.
  - After exposure to severe weather, including, but not limited to, high winds, hail, or abnormally heavy rains, ice or snow.
    - Items to check after high winds include:
      - Debris scattered on the roof
      - Loose flashing or other roof components
      - Punctures from falling or flying objects
      - Loose fasteners (Replace stripped-out fasteners by removing existing fastener; apply butyl sealant into hole; install an oversize, long-life fastener into hole)
      - Any other damage



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### *Section 3.0 – Inspections (Cont.)*

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- Items to check after a hail storm include:
  - Punctures
  - Damaged trim
  - Loose fasteners (Replace stripped-out fasteners by removing existing fastener; apply butyl sealant into hole; install an oversize, long-life fastener into hole)
  - Any other damage
- Items to check after abnormally heavy rains include:
  - Roof for ponding water
  - Gutters for ponding water
  - Roof curbs and penetrations and other special trim conditions to ensure water is not ponding upslope from these areas
  - Loose fasteners (Replace stripped-out fasteners by removing existing fastener; apply butyl sealant into hole; install an oversize, long-life fastener into hole)
  - Any other damage
- Items to check after ice or snow events include:
  - Check trim and plumbing pipes for damage from sliding ice or snow
  - Roof for ponding water
  - Roof curbs and penetrations and other special trim conditions to ensure water is not ponding upslope from these areas
  - Damage to gutters from sliding ice or snow
  - Damage to snow retention devices
  - Loose fasteners (Replace stripped-out fasteners by removing existing fastener; apply butyl sealant into hole; install an oversize, long-life fastener into hole)
  - Any other damage
- After other trades have been on the roof for any reason;
  - Inspect the roof for damage caused by workers including chemical or solvent spills, scratches in the paint or Galvalume coating, excessive foot traffic and punctures.
  - Make sure that any debris or scrap left behind by the workers is removed from the roof immediately.
  - Avoid using cutoff saws and welding equipment over the roof. In cases where this is not possible, the roof must be adequately protected. A fire cloth is recommended.
  - Items such as drill shavings, wire, metal scrap and other debris can corrode and damage the roof. Sharp pieces of metal, such as those left by a nibbler, can stick in a worker's shoes and scratch the paint as they walk on the roof.
  - Mortar or concrete will etch the paint or Galvalume coating. Roof panels in areas where there is a possibility of any masonry product being spilled on them should be protected. In the event that the panels do have a masonry product spilled on them, they should be cleaned and the panels rinsed.



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### ***Section 3.0 – Inspections (Cont.)***

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- Should any solvent or chemical be spilled on the roof, clean up immediately and thoroughly rinse the affected area. Panels should be cleaned with mild detergent.

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### ***Section 4.0 - Repairs***

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Never allow workers to "fix" leaks by applying caulk, elastomeric membranes, plastic roof cement, etc to the roof surface. This is never a long term solution for repairing a leak. Surface applied caulks and compounds will eventually lose their bond to the metal. This will allow water to become trapped between the repair material and the roof panel, which will cause severe corrosion. Leaks at panel or trim joints, should be repaired by disassembling the metal joint and reinstalling the proper sealant between the metal layers. Leaks caused by roof punctures must be evaluated on an individual basis. In some cases, the affected roof panel may need to be replaced.

Always consult McElroy Metal before initiating repair work. McElroy Metal can give you helpful information as to how to make the repair and can give you a list of "Certified Installers" in your area that you can contact about performing the repair work.

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### ***Section 5.0 – Foot Traffic***

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Keep foot traffic to a minimum. Heavy foot traffic can cause ponding on low pitched roofs. This is particularly true just upslope from the eave and at endlaps. Always walk in the flat of the panel near a supporting roof structural. Do not walk on trim or in gutters. On bare Galvalume roofs, excessive foot traffic may cause black burnish marks. If regular foot traffic is planned for a roof, provisions should be made for a properly designed and installed roof walkway system.

In order to limit access to the roof, roof hatches or access ladders should be locked at all times. A sign should be posted at the point of access, stating that only authorized personnel are allowed onto the roof. In addition, a log book should be kept of all visits to the roof and the reason for such visits.

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### ***Section 6.0 – Drainage***

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In order for your roof to perform as intended, water must properly drain from the roof. Avoid the following:

- Do not allow anything to be installed on your roof that will cause water to pond.
- Keep roof free of debris and keep debris out of gutter to allow water to quickly drain from roof.
- Do not use wood blocking to hold equipment off of panel seams. This blocks the flow of water and holds moisture. Also, if the wood is treated, it may contain salts or copper sulfate which will deteriorate the roof, and void warranty coverage.
- Do not allow water to cascade onto the roof from an adjacent roof.
- Do not allow rooftop AC units or evaporative coolers to drain onto the roof. The condensate from AC contains dissolved copper ions which will cause galvanic corrosion. The water from evaporative coolers contains high salt concentrations which will cause severe corrosion. Use PVC pipe to carry the condensate to the gutter.
- Anything that traps or holds moisture on a roof, will cause premature corrosion.



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## *Section 7.0 – Ice and Snow Removal*

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Excessive ice and snow should be removed from the roof immediately to prevent damage to roof and possible collapse. Do not use metal tools to remove the ice or snow as this can damage the paint and/or Galvalume coatings. Also, be careful around plumbing pipes and flashings.

Be extremely careful if your roof has Light Transmitting Panels. THESE PANELS WILL NOT SUPPORT A PERSON'S WEIGHT AND WILL BE DIFFICULT OR IMPOSSIBLE TO SEE IF THEY ARE COVERED WITH ICE AND SNOW.

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## *Section 8.0 – Additions to Roof*

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All additions to the roof, including but not limited to, roof curbs, pipe penetrations and HVAC units must be approved in writing by McElroy Metal before work commences. All work must be performed by a McElroy Metal "Certified Installer".

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## *Section 9.0 – Dissimilar Materials*

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Never allow your roof to come in contact with, or water runoff from, any dissimilar metal including but not limited to:

- copper
- lead
- graphite
- mortar or cement

Failure to adhere to this requirement will cause your roof to rapidly deteriorate due to galvanic corrosion and will void all warranties. Common abuses of this requirement include: lead hats for plumbing vents, copper lightning rods and/or cable, copper trim, existing copper gutter that drains water onto your new roof, and condensate from rooftop AC units draining onto roof.

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## *Section 10.0 – Paint and Coating*

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Remove smudge marks from bare Galvalume. Formula 409 has proven to be somewhat effective. Lightly rub with a clean cloth and rinse with water. Do not rub more than required to remove smudge. No product will remove all smudge marks.

Remove rust stains. Soft Scrub has proven to be somewhat effective. Lightly rub with a soft cloth and rinse with water. Do not rub more than required to remove stain. No product will completely remove rust stains.

To touch-up scratches in paint (not to bare metal), clean area to be painted with mineral spirits. Rinse thoroughly and dry. Using a small artist's brush, lightly apply the absolute minimum amount of touch-up paint required to fill the scratch. Use only touch-up paint supplied by manufacturer.