

FM GLOBAL LOSS PREVENTION DATA SHEETS UPDATE

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Recently, FM Global (FMG) released several revised roofing-related Loss Prevention Data Sheets (LPDS). This article will summarize those changes and provide some insight as to the impact the changes may have on your next roofing project. The LPDS can be downloaded from the FMG website at <https://www.fmglobal.com/research-and-resources/fm-global-data-sheets>

FM Global Loss Prevention Data Sheets apply only to those owners whose insurance company adheres to FMG loss prevention recommendations, or an owner that chooses to follow FMG loss prevention recommendations.

The most common revision to several data sheets was to reflect changes in pressure coefficients and zone dimensions identified in ASCE 7-16. This includes changing the terms used for roof areas from field, perimeter, and corner to Zone 1, Zone 2, and Zone 3, respectively, and adding a new interior roof Zone 1' (one prime). The basic design wind speed maps for the continental United States and Alaska remained unchanged and are still based on ASCE7-05. Separate wind maps have been provided for each of the Hawaiian Islands. This includes several of the most used roofing related data sheets such as;

- **1-28 WIND DESIGN**
- **1-29 ROOF DECK SECUREMENT AND ABOVE-DECK ROOF COMPONENTS**
- **1-30 REPAIR OF WIND-DAMAGED SINGLE AND MULTI-PLY ROOF SYSTEMS**
- **1-31 PANEL ROOF SYSTEMS**
- **1-49 PERIMETER FLASHING**

In some cases, roof wind pressures have increased considerably and may require additional attachment criteria to meet the new requirements, this specifically includes additional attachment that will be required in the new interior roof zone (Zone 1').

LPDS **1-34 HAIL DAMAGE**, underwent only minor editorial changes during this latest revision. This LPDS provides loss prevention guidelines to aid in minimizing the potential for hail damage to buildings, roof-mounted equipment, and other outdoor equipment. No significant impact is anticipated from this revision. However, major changes were made



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from 2014 to 2019, adding and defining the Very Severe Hail (VSH) category. Please see Benchmark's Article regarding performance and cost impacts of the VSH rating.

Data sheet **1-52 FIELD VERIFICATION OF ROOF WIND UPLIFT RESISTANCE** describes two methods of field up-lift testing on completed roof systems in critical hurricane-prone regions. It also provides alternative visual construction observation guidelines. This data sheet was completely revised with the following significant changes made;

- A. Reformatted document to simplify implementation of the testing.
- B. Renamed the "safety factor" for testing to "uplift testing" factor.
- C. Updated the roof zone nomenclature.
- D. Added testing parameters to accommodate a new interior roof zone (Zone 1').

Minor increase in testing cost is anticipated due to the need for increased testing for the new interior roof zone (Zone 1').

Only minor editorial changes were made to the following data sheets during this latest revision. No significant impact is anticipated from this revision.

- **SAFEGUARDS DURING CONSTRUCTION, ALTERATION, AND DEMOLITION**
- **1-22 MAXIMUM FORESEEABLE LOSS (MFL)**

The following changes were made to **LPDS 1-15 ROOF-MOUNTED SOLAR PHOTOVOLTAIC PANELS**. This LPDS provides guidance related to fire and natural hazards for the design, installation, and maintenance of all roof-mounted photovoltaic(PV) solar panels used to generate electrical power.

- A. Simplified the electrical recommendations section and added references to the 2017 edition of the National Electrical Code.
- B. Simplified wind design guidance for PV arrays that are parallel to and within 5" to 10" above the roof surface.
- C. Expanded wind design guidance for sun-facing, sloped PV arrays

Most of these requirements have been previously required by code and NFPA, no significant impact is anticipated due to these changes

LPDS 1-35 VEGETATIVE ROOF SYSTEMS has been completely revised, with the following changes made:

- A. Changed title to Vegetative Roof Systems (was Green Roof Systems).
- B. Reorganized the entire document.



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- C. Added recommendation to install vegetative roofs in areas not susceptible to wildland fire as defined in LPDS 9-19, Wildland.
- D. Increased the safety factor for securing vegetative components.
- E. Increased the separation distances by subdividing large vegetative roof areas, and between vegetative roof areas and rooftop equipment.

This LPDS provides general recommendations for selecting and installing vegetative roof systems in areas where the design wind speed is less than 100 mph and not susceptible to wildland fire. Increased cost is anticipated due to the requirement for additional securement and separation distances.

Site or project specific interpretation of the recommendations in a LPDS will impact any project.

Feel free to contact your Benchmark Consultant to determine what, if any, impact these revised recommendations may have on your roofing project.