



PROBLEM:

This bus garage suffered from leaking valleys at the intersection of three curved roofs. The leaks caused secondary wood structurals to deteriorate, eliminating the possibility of bearing additional load. Since the building was in constant use, the roof leaks were becoming a hazard for employees.



SOLUTION:

Butler's solution was to re-slope affected roof areas. To accomplish this without adding weight to the existing deck or purlins, Butler engineered beams to span from truss to truss. This design removed the valleys without tearing off the roof. Operations were maintained throughout the entire process.



PROBLEM:

This automobile assembly plant had 260,000 square feet of uninsulated roof area covered with failing concrete roof tiles. The roof retrofitting had to be done without disrupting the assembly operation below. Reducing energy costs was also a significant consideration.



SOLUTION:

The owner chose the MR-24® standing-seam metal retrofit roof system. The new MR-24 system utilized Z-shaped sub-purlins for attachment to the existing roof tiles. A layer of four-inch fiberglass insulation was installed under the new roof panels, providing significant long-term energy savings.



PROBLEM:

This printing operation had a 425 foot long, corroded interior valley gutter that was a constant source of leaks. The valley gutter separated the exposed fastener metal roof of the original metal building, built in 1965, from the exposed fastener metal roof of a side-by-side building built in 1967.



SOLUTION:

A light-gage steel substructure was constructed on the roof to turn the interior valley gutter into a ridge. A new MR-24® standing seam roof and three inches of fiberglass blanket insulation was installed over the substructure to create a new, long-life leak-free solution for this printing operation.



BEFORE

PROBLEM:

Built in 1917, the Goodyear Wingfoot Lake Airship Operations Hangar was in dire need of a new roof and new walls because the structure could no longer provide the weathertight performance expected for the facility. Additionally, the project had to conclude in 2007 and hold to the established budget.



IN PROGRESS



AFTER

SOLUTION:

Butler's solution included an MR-24® roof system and Butlerib® II wall system, both of which allowed for expedient installation and enabled the daily close-in schedules to be met without interruption to operations.



LONG-TERM REROOF SOLUTIONS



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BUTLER OFFERS LONG-TERM SOLUTIONS FOR YOUR BUILDING'S ROOF PROBLEMS.



Most roof repairs are only temporary solutions. By their very nature, built-up or single-ply roof systems require constant maintenance to remain watertight. But there is a better option.

Butler Manufacturing™ offers long-term solutions to whatever roof problems are compromising your structures—the Metal-Over-Metal Systems, the Slope Build-up Reroof System, and many custom retrofit systems. These systems are practical, long-term, and cost-efficient retrofit solutions.

INSTALL A BUTLER® ROOF SYSTEM THAT'S AFFORDABLE, DURABLE, ATTRACTIVE, AND GREEN.

In most cases, you can install a Butler® reroof system directly over your current existing built-up, single-ply, or metal roof. This saves you the cost of tearing off your current roof and avoids any interruption to your business activities during the process.

There are many other reasons why a Butler roof system is your best choice.

AFFORDABILITY

You may be surprised to discover that a Butler retrofit roof is comparable in price to short-term fixes. You can achieve more savings through the improved energy efficiency that comes with the addition of new insulation. You can also eliminate removal and disposal costs, a very "green" solution, by installing a new slope build-up roof system directly over your existing roof.

LONGEVITY

Butler standing-seam roofs have documented in-place performance since the late 1960s. Research confirms that these roofs withstand decades of harsh sun, heavy rains, snow, ice, and extreme temperatures with minimal annual maintenance.

FLEXIBILITY

Whether your roof repairs are basic or complex, Butler reroof systems fit your needs. We can install over all types of flat roofs to a variety of slopes and even steep-pitched roofs. We can also add pitch by installing a structural slope build-up system directly over a flat roof.

DURABILITY

Constantly changing temperatures cause a roof to expand and contract thousands of times each year. Butler roof systems are specifically engineered to allow for this natural thermal movement and provide years of long-term watertight performance.

AESTHETICS

A new steep-sloped metal roof can dramatically change the appearance of a building. Butler can add color, provide a mansard, or change a roof pitch to give your entire building a face lift.

GREEN BUILDING

Butler roof systems are material-efficient, made from recycled material, recyclable, low-maintenance, and long-life roof solutions. Their green attributes may earn credits for LEED®

certification. They're also available in "cool roof" colors with a certified, highly reflective finish to reduce energy consumption.

SYSTEM DESIGN

With Butler, all aspects of your roof system—ridges, eaves, trims and flashings, interior or exterior drainage, roof openings, and accessories—have been designed to work in unison with the metal roof to form an integrated system.

RELIABILITY

Butler introduced the first modern standing-seam roof system in 1969 and continues to lead the metal roofing industry. The MR-24® roof system has been installed on more than 2 billion square feet of buildings all over the world. In fact, it is specified more than any other standing-seam roof.

INDUSTRY-LEADING WARRANTIES

It stands to reason that the best roofing systems should carry the best warranties. The Butler Watertight Gold warranty assures up to 20 years of weathertight protection and includes full-system coverage of roof trims, roof curbs, and pipe penetrations on a non-prorated basis during the entire warranty life.

1 VSR II™ STANDING-SEAM METAL ROOF SYSTEM

Combine structural integrity with aesthetic appeal. The strong visual lines and variety of colors make the VSR II metal roof system the right choice for all types of building solutions, whether it's used to recover asphalt shingles, on slope-enhancing frames, or atop the engineered light-gauge truss system.

2 REROOFING OVER SHINGLES

Sub-purlins are attached to the existing wood deck or joists, and one or more layers of blanket insulation are added to increase energy efficiency. Often in this application, the VSR II standing-seam metal roof system is selected because of its outstanding performance combined with lasting beauty.

3 SLOPE BUILD-UP FRAMING SYSTEM

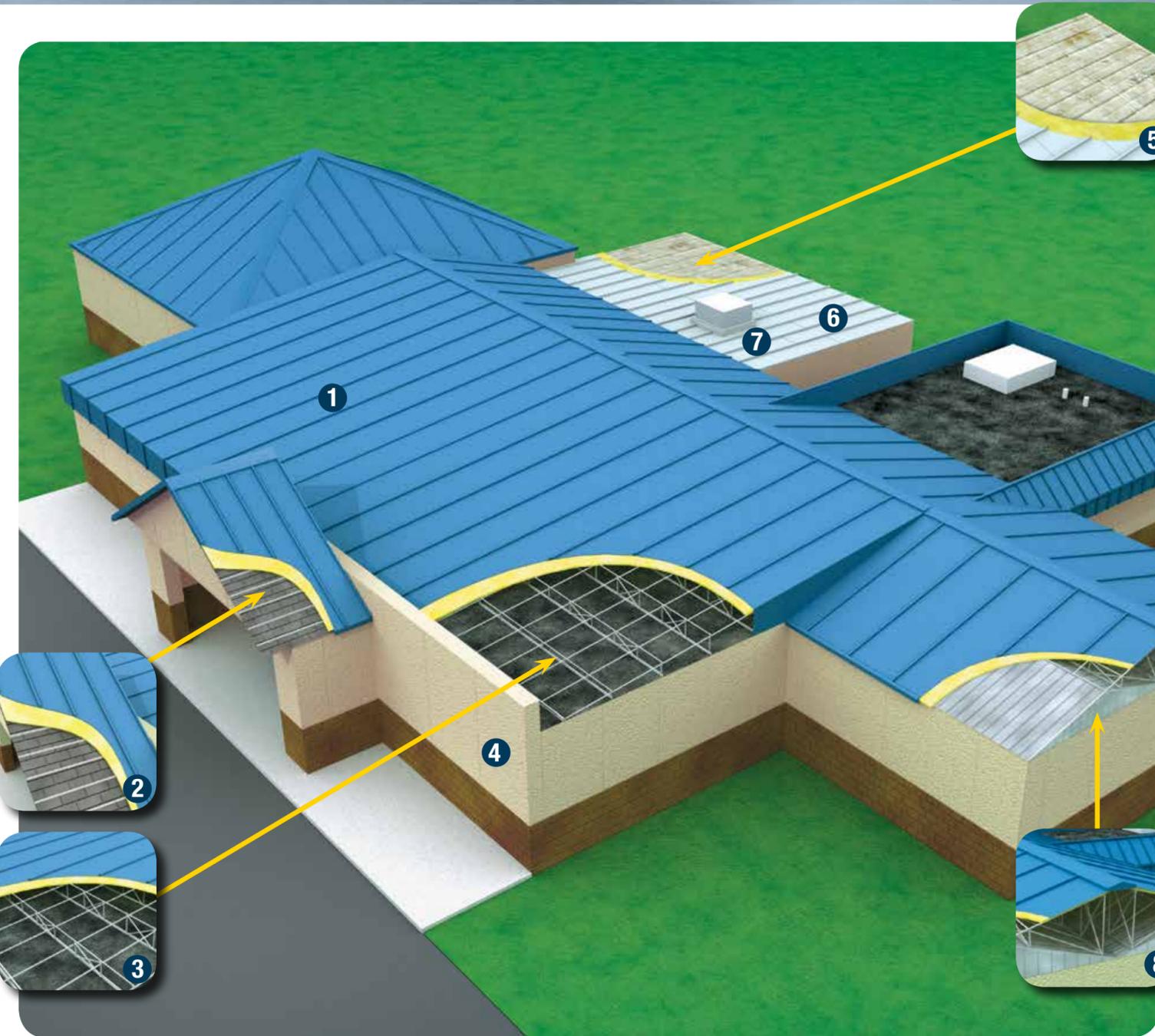
Flat roofs often leak. A Butler slope-enhancing steel framing system engineered to meet the toughest building codes and loads can permanently add slopes up to 30 degrees (7:12)—more than enough for most buildings to quickly shed damaging ponding water. The flexible system can be overlaid with all structural metal roof panels and also allows insulation to be added.

4 WALL SYSTEMS

Re-siding transforms aging buildings into showpieces. We offer a variety of wall systems suitable for any type of construction, ranging from the most economical metal wall panel to custom designs incorporating conventional wall materials of your choice.

5 LOW-PROFILE METAL-OVER-METAL SYSTEM

Thru-fastened metal roofs have a shorter life span than standing-seam roofs. An economical low-profile metal-over-metal system easily



attaches to your building's existing roof structurals, virtually eliminating all leaking caused by exposed fasteners. Additional insulation can be added for increased energy efficiency.

6 MR-24® STANDING-SEAM METAL ROOF SYSTEM

Butler's long-term, low-slope roof solution is the MR-24 roof system—the most specified metal roof system in the industry. Developed in the late 1960s, the MR-24 roof system has far outpaced all of its long-term warranties and consistently outperforms all other low-slope roofs in such critical areas as lifecycle costing, annual maintenance requirements, and serviceability.

7 ROOF-MOUNTED EQUIPMENT

Eighty percent of all roofs leak at locations around roof-mounted equipment. Butler is the only metal roof manufacturer to design and patent its own roof curb to meet the industry's most stringent requirements. The all-aluminum Internal Flange (IF) curb comes in standard sizes and can also be custom manufactured to any size. The IF Curb design ensures your roof is watertight for decades to come.

8 RE-SLOPING FOR WATER MANAGEMENT

Buildings are often built and then added on to at a later date. This can transform what was originally designed to be an exterior gutter into an interior gutter that fails to be watertight. Butler offers a unique solution by reverse-sloping the affected roof areas with a Butler-engineered steel framing system, effectively redirecting water drainage to the exterior.