Sustainable, Energy Efficient and Long-Term Solutions for Roof Replacement.
McElroy Metal has the optimal solution for building owners, architects and contractors who desire a high performance, long-term solution for worn-out conventional roofs. McElroy Metal Retrofit Roofing Systems provide long-term life expectancy and reduced life-cycle costs. In many cases, the cost difference between a conventional roof tear-off and replacement compared to a retrofit metal roof system is a return on investment which can be recouped in just a few short years. As an added plus, McElroy Metal Retrofit Roofing Systems provide curb appeal which simply cannot be achieved with flat roofs.

**Building owner benefits**
- Decades long service life
- Reduced maintenance
- Energy savings through reduced consumption
- Meets Energy Star® requirements
- Metal roofing is an ideal host substrate for solar photovoltaic panels
- Aids in LEED™ certification
- Increases wind and snow storm resistance
- Possible reduction of insurance premiums
- Improves appreciable value of your building

**The Contractor’s Advantages**
- Easy to erect framing systems
- Designed by in-house McElroy Metal engineering staff
- Installer training available
- Proven and tested standing seam metal roofing systems
- All materials manufactured by McElroy Metal
- Quicker than normal turn-around times
- Reduces land fill expenses for disposal of existing materials

McElroy Metal Retrofit Roofing Systems are engineered to adapt to the existing roof’s structural support system whether constructed of steel, concrete or wood. The importance of engineering the new retrofit framing system is hallmark to the overall project.

Visit www.mcelroymetal.com/retrofit for technical information and to download our complete retrofit system design guide.
Sustainable Solutions for Existing Flat Roofs

By design, flat roofs with conventional membranes have a host of problematic conditions. Their inability to shed rainwater promotes premature failure of the weathering membrane and its substrate. They are subject to harsh conditions caused by membrane deterioration from UV degradation and thermal expansion/contraction, ponding water and infiltrated trapped moisture that freezes in the winter, steams in the summer. The result is constant maintenance, unexpected patch and repair work as well as inevitable roof replacement. Conventional tear-off and roof replacement is not a long-term solution.

Retrofitting existing flat roofs with metal roofing is not a new idea. All levels of government as well as schools and private businesses have been retrofitting their flat roofs for decades using engineered “Metal-over-Flat” framing and metal roofing systems. The framing systems create a slope for the new metal roof. The framing can be designed to incorporate a new utilitarian low-slope roof for simply discharging rainwater or an architectural steep-slope for upgrading the aesthetics and curb appeal of the building. The newly installed McElroy Metal roof offers the strength, durability and longevity to resist natures elements for decades of service life.

Economical Solutions for Existing Sloped Roofs

Since not all roofs are flat, McElroy Metal also has solutions for retrofitting existing buildings with low and steep sloped roofs. Basically, these applications include an engineered light-gauge steel sub-framing system to provide a structural base for installing a new thru-fastened or standing seam roof panels. For conventionally built roofs with various membranes such as composition shingles, modified bitumen and others, McElroy’s “Metal-over-Sloped” System can provide a structural hat-channel purlin that is designed to meet current building code requirements. For existing pre-engineered metal buildings that have roofs which need replacing, McElroy Metal has partnered with Roof Hugger®, the Leader in “Metal-over-Metal” Retrofit Systems. These factory-notched sub-purlins adapt to the multitude of existing metal roof profiles whether they are thru-fastened or standing seams by nesting into and over the existing panel ribs. The Roof Hugger sub-purlin is unique in its applications, whereby they have been tested to prove that they increase the load carrying capacity of the existing building purlins. This results in their ability to compensate for the added weight of the new Roof Hugger sub-framing and new McElroy Metal roof system.
Raising the Roof with Energy Efficient Solutions

Due to the high reflectivity (Energy Star Classified) values of a new metal roof, in conjunction with the air space that is created with the new sloped framing, energy consumption will be greatly reduced. Also, during the design and installation of the new retrofit system, it is the ideal time to improve energy efficiency by installing high-performance insulation and dynamic ventilation. And further, if you want to take advantage of federal, state and local tax credits consider integrating renewable solar systems into your project. Plus, unlike conventional roofing products, metal roofing will outlast the normal service life of solar panels. McElroy Metal roofing systems can accommodate both thin-film and crystalline photovoltaic panels which use the sun’s energy to create electricity. Use the solar thermal system installed below the new roof for radiant space heating or to pre-heat your domestic hot water or manufacturing processes. Visit www.dsireusa.org to find solar tax incentives in your area.