Transforming Dana
Historic Renovation - The Ultimate Recycling

The Dana Building was constructed in 1903 for the School of Medicine, anchoring a corner of Michigan’s historic central campus “Diag.” Reusing Dana integrates both the material fabric of the building, a “reusing structure”, and the cultural landscape of Michigan’s Central Campus, a designated Historic District.

Staying in Place/Expanding in Place

SNRE kept its prime location at the heart of the campus by expanding Dana by more than 25% - an “umbrella” of steel framing was erected in the central courtyard, providing additional space on four existing floors and adding a partial fifth floor suspended over the existing building.

Transforming Daylight Courtyard into Atrium

The open courtyard was converted into an enclosed Atrium with skylight - lab and computer spaces needing reduced glare are clustered around the Atrium and appropriate indirect daylight filters in.

“The Greenest Building is One That is Already Built”

Conserving Material & Cultural Resources

Harvesting Material Resources

The deconstruction of portions of the original building yielded valuable material for re-use - harvested roof framing yielded 11,000 board-feet of old-growth pine used for furniture and architectural features like the Atrium balcony railing.

Displaying Embodied Energy

Conserving 100% of existing masonry walls captured the equivalent of 135 tanker trucks of embodied energy - more than 80 times the actual energy savings calculated in the whole building energy simulation which confirmed the performance of high-efficiency energy-consuming systems engineered into the Dana Building renovation.

University of Michigan
Greening of Dana
School of Natural Resources & Environment

QUINN EVANS | ARCHITECTS
in association with
William McDonough + Partners
University of Michigan

Green Technologies as Preservation Strategies

Radiant Panel Cooling
Designed to leverage the physical properties of water, Dana is cooled using ceiling panels that “radiate” cooling - most spaces do not require suspended ceilings, restoring Dana’s high ceilings and tall windows.

Green Materials
Industrial ecology is a focus of study at SNRE. Dana is a laboratory for green materials - incorporating materials that are salvaged, recycled, contain recycled content, natural, rapidly renewable, certified sustainable wood, from local sources or that contain no or low VOCs.

Photovoltaic Panels
On roof areas that are not visible from the protected views of the historic campus setting, two arrays of photovoltaic panels demonstrate renewable energy technologies. The PVs generate a maximum output of 33 kilowatts.

Water Efficiency
Dana is a laboratory for water-conserving technologies: water efficient landscaping requires no irrigation, low-flow fixtures, proximity sensors on faucets, waterless urinals and composting toilets.