

Fire Station #3

By: Enzo Lundy

Located at Hoyt Avenue and Council Street, just south of the railroad interchange in Downtown, sits Fire Station 3. The building on-site was built after the former fire station was demolished meet the demands of a growing population in the 1960s and 70s.

The building has a completely flat roof, which makes it simple and easy to install solar panels. Along with a flat roof, there are very few rooftop ventilation and other systems which allows there to be more solar panels installed. Instead of the building being built at north-south vertices like most buildings, it follows the 45 degree angle of Hoyt Ave. This is the largest advantage this site has over others, since this angle will actually improve solar panel efficiency and productivity because the panels will face the sun more directly. There are a few trees on-site, however, these trees are located on the northeast edge of the site and will not cast any shade on the panels.

These site characteristics make Fire Station #3 a strong, highly recommended candidate for solar panel installation.

Bibliography:

Energy estimates made using the PVWatts calculator from the National Renewable Energy Lab (NREL) at pvwatts.nrel.gov.

Proposal and Site Overview:

- + Can accommodate 202 solar panels that will generate 50,677.4 kWh/year. Most productive in July.
- + Ownership | Acreage
 - + City of Muncie | 0.14 acres
- + Suggested PV System Specifications
 - + 15 degree tilt
 - + Fixed roof mount
- + Sized for an off-grid solar installment



Solar panel module:
SPR-200-BLK-u

Manufacturer:
SunPower

