

SOLAR ARRAY AND WINDOW REPLACEMENTS

501 BUILDING



PROJECT DETAILS

LOCATION

County Campus
Wheaton, IL

ISSUE

Existing building age allows for building envelope improvements

SOLUTION

Embrace solar opportunity
Replace windows with new

BENEFIT

Produce green energy
Improved building energy efficiency and conditions

DISTRICTS REPRESENTED

US Representative Districts:
3, 4, 6, 8, & 11

IL Senate Districts:
4, 21, 23, 24, 25, 28, 33,
39, 41, 42, & 43

IL Representative Districts:
7, 41, 42, 45, 46, 47, 48,
49, 50, 56, 65, 77, 81,
82, 84, & 85

County Board Districts:
1, 2, 3, 4, 5, & 6



501 SHERIFF / JAIL BUILDING

Portions of the 501 Sheriff/Jail Building were built in 1981, with the 'tower' addition built in 1990. Original building materials such as roofing and glazing are reaching their expected end-of-life, allowing for the opportunity to add solar and more efficient building envelope options.

Solar [Photovoltaic] Panel Additions

- Portions of existing roof have been recently replaced and are ideal locations for solar panels
- Design is in progress for new array and required electrical infrastructure
- Current estimate for roof PV system: **\$230,000-\$260,000**

Operable Skylight over 'B' Building Recreational Area

- Existing skylight [which opens horizontally to allow in fresh air and direct sunlight] is at end of expected lifespan

- Replacement of equipment and tracks along with new glazing structure
- Current estimate for new operable skylight: **\$150,000-\$200,000**

Replacement of Facility Windows

- The storefront-type glazing [which includes a 'skylight' portion above] is now leaking in several areas. Replacing with new sealed glass [using modern UV and insulation standards] would substantially improve building energy efficiency.
- Current estimate for different phases of window replacements range from **\$1,000,000 each** to approximately **\$6,000,000 for entire building**